TOSHIBA

FILE NO. 050-200522
(MFR'S VERSION A)

SERVICE MANUAL

COLOR TELEVISION

34HF85
34HF85C

DOCUMENT CREATED IN JAPAN, August, 2005

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.
Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a ⚠ mark, the designated parts must be used.

4. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

5. TAKE CARE TO DEAL WITH THE CATHODE-RAY TUBE

In the condition that an explosion-proof cathode-ray tube is set in this equipment, safety is secured against implosion. However, when removing it or serving from backward, it is dangerous to give a shock. Take enough care to deal with it.

6. AVOID AN X-RAY

Safety is secured against an X-ray by considering about the cathode-ray tube and the high voltage peripheral circuit, etc.
Therefore, when repairing the high voltage peripheral circuit, use the designated parts and make sure not modify the circuit.
Repairing except indicates causes rising of high voltage, and it emits an X-ray from the cathode-ray tube.

7. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the eternal exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal
Headphone jack

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER
   The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.
2. PART NO. and DESCRIPTION
   You can find it in your SERVICE MANUAL.

IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease on the contact section of the heat sink. Befor applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor.)

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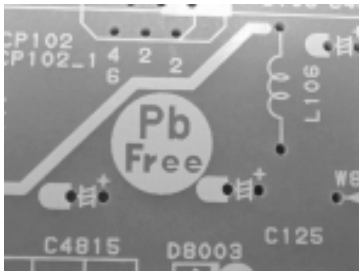
ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
  Typically the melting point is 50°F~70°F(30°C~40°C) higher.
  Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
  In case of using high temperature soldering iron, please be carefull not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
  When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
  and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	**TV System**	CRT	CRT Size / Visual Size	34 inch / 860mmV
			CRT Type	Flat (16:9)
			Magnetic Field BV/BH	+0.45G/0.18G
		Color System		NTSC
		Display Capability		1080i/540p
		Speaker		2 Speaker
			Position	Front Bottom
			Size	2.0 x 4.7 Inch
			Impedance	4 ohm
		Sound Output	MAX	10W+10W
			10%(Typical)	- W
		NTSC3.58+4.43 /PAL60Hz		No
G-2	**Tuning System**	Broadcasting System		US System M
		Tuner and Receive CH	System	1Tuner
			Destination	USA(W/ CABLE)
			Input Impedance	VHF/UHF 75 ohm
			CH Coverage	2 - 69, 4A, A-5 - A-1, A - I, J - W, W+1 - W+84
		Intermediate Frequency	Picture(FP)	45.75MHz
			Sound(FS)	41.25MHz
			FP-FS	4.50MHz
		Preset CH		No
		Stereo/Dual TV Sound		Yes
		Tuner Sound Muting		Yes
G-3	**Power**	Power Source	AC	120V AC 60Hz
			DC	
		Power Consumption	at AC	
				195 W at AC 120 V 60 Hz
			Stand by (at AC)	1 W at AC 120 V 60 Hz
			Per Year	-- kWh/Year
		Protector	Power Fuse	Yes
			Safety Circuit	Yes
			IC Protector(Micro Fuse)	Yes
G-4	**Regulation**		Safety	UL
			Radiation	FCC
			X-Radiation	DHHS
G-5	**Temperature**		Operation	+5oC ~ +40oC
			Storage	-20oC ~ +60oC
G-6	**Operating Humidity**			Less than 80% RH

GENERAL SPECIFICATIONS

G-7	**On Screen Display**	Menu			Yes	
			Menu Type		Icon	
			Picture		Yes	
				Mode(Picture preference)	Yes	
				Brightness	Yes	
				Contrast	Yes	
				Color	Yes	
				Tint	Yes	
				Sharpness	Yes	
				Color Temperature	Yes	
				Display Format	Yes	
				Cable Clear	Yes	
				SVM	Yes	
				Reset	Yes	
			Audio		Yes	
				MTS	Yes	
				Bass	Yes	
				Treble	Yes	
				Balance	Yes	
				Stable Sound	Yes	
				Speakers On/Off	Yes	
				Dolby Virtual		No
				WOW SRS 3D		No
				WOW Focus		No
				WOW Tru Bass		No
				BBE	Yes	
				HDMI1	Yes	
				HDMI2		No
				Reset	Yes	
			Setup		Yes	
				Language	Yes	
				Clock Set	Yes	
				TV/CABLE	Yes	
				CH Program	Yes	
				Add/ Erase	Yes	
				Closed Caption	Yes	
				Picture Size	Yes	
				Picture Scroll	Yes	
				Cinema Mode	Yes	
				Aspect	Yes	
				Image Tilt	Yes	
			Option		Yes	
				On/Off Timer	Yes	
				Favorite CH	Yes	
				CH Label	Yes	
				VIDEO Label	Yes	
			Locks		Yes	
				V-Chip	Yes	
				Lock (CH Lock, Video Lock, Game Timer)	Yes	
				Front Panel Lock	Yes	
				New Password	Yes	
			Control Level		Yes	
				Volume	Yes	
				Contrast	Yes	
				Brightness	Yes	
				Color	Yes	
				Tint	Yes	
				Sharpness	Yes	
				Bass	Yes	
				Treble	Yes	
				Balance	Yes	
				Image Tilt	Yes	
				Picture Scroll	Yes	
			Stereo, SAP, Mono		Yes	
			Video		Yes	
			Color Stream(Component)		Yes	
			HDMI		Yes	
			Channel(TV/Cable)		Yes	
			CH Label		Yes	
			Video Label		Yes	
			Clock		Yes	
			Game Timer		Yes	
			Front Panel Lock		Yes	
			On/Off Timer		Yes	
			Sleep Timer		Yes	
			Reset		Yes	
			Sound Mute		Yes	
			V-chip Rating		Yes	
			NOT AVAILABLE		Yes	
			Picture Size		Yes	

GENERAL SPECIFICATIONS

G-8	**OSD Language**			English French Spanish
G-9	**Clock and Timer**	Sleep Timer	Max Time	120 Min
			Step	10 Min
		On/Off Timer	Program	Yes
		Wake Up Timer		No
		Timer Back-up (at Power Off Mode) more than		-- Min Sec
G-10	**Remote Control**	Unit		RC-KK
		Glow in Dark Remocon		Yes
		Back Light Remocon		No
		Remocon Format		Toshiba
		Format		Toshiba
		Custom Code		TV:40-BFh
		Power Source	Voltage(D.C)	3V
			UM size x pcs	UM-4 x 2 pcs
		Total Keys		44 Keys
		Keys	Power	Yes
			1	Yes
			2	Yes
			3	Yes
			4	Yes
			5	Yes
			6	Yes
			7	Yes
			8	Yes
			9	Yes
			0	Yes
			100 /+10	Yes
			CH Up	Yes
			CH Down	Yes
			Volume Up	Yes
			Volume Down	Yes
			TV/Video(Input Select)	Yes
			ENT,CH RTN(Quick View)	Yes
			Menu > / FAV Up	Yes
			Menu < / FAV Down	Yes
			Menu Up	Yes
			Menu Down	Yes
			Mute	Yes
			PIC SIZE (16:9)	Yes
			Sleep	Yes
			Exit	Yes
			Light	No
		Multi Brand Keys	TV	Yes
			CBL/SAT	Yes
			VCR	Yes
			DVD	Yes
		(DVD Keys)	Enter	Yes
			DVD Clear	Yes
			Top MENU	Yes
		(TV / DVD Keys)	RECALL(Call) / (Display)	Yes
			Menu/Enter / DVD MENU	Yes
		(DVD / VCR Keys)	Pause/Still	Yes
			FF	Yes
			Rew	Yes
			Play	Yes
			Stop	Yes
			<</Skip / Search Forward	Yes
			>>/Skip / Search Forward	Yes
		(VCR Keys)	Rec	Yes
			TV/VCR	Yes

GENERAL SPECIFICATIONS

G-11	**Features**	Auto Shut Off		Yes
		Power On Memory		Yes
		CABLE		Yes
		Memory(Last CH)		Yes
		Memory(Last Volume)		Yes
		V-Chip		Yes
			Type	USA, ORION Type
		SRS WOW(SRS 3D/Focus/Tru Bass)		No
		Virtual Dolby		No
		BBE		Yes(Digital)
		Stable Sound		Yes
		Timer(On Timer /Off Timer/Sleep Timer)		Yes
		Aspect		Yes
		Cinema Mode		Yes
		Image Tilt		Yes
		Direct Input Selection		Yes
		Auto Search		No
		CH Lock		Yes
		CH Program		Yes
		CH Label		Yes
		SAP		Yes
		Just Clock Function		No
		VIDEO Label		Yes
		SVM Circuit		Yes
		Comb Filter		Yes 3 -D
		Super Wide Band AMP		No
		Cable Clear		Yes
		Hotel Lock		No
		Closed Caption		Yes
		FBT Leak Test Protect		Yes
		Video Lock		Yes
		Game Timer(Max Time:120Min)		Yes
		Energy Star		Yes
		Favorite CH		Yes
		Variable Audio Out		Yes
		Picture Size		Yes
		Color Temperature Control		Yes
		Mode(Picture Preference)		Yes
		Front Panel Lock		Yes
		Available Scan Rates	(Component/HDMI)	480i/480p/720p/1080i
		Menu=Volume Up+Volume Down		Yes
		Auto Setup(Language/CH Program)		Yes
G-12	**Accessories**	Owner's Manual	Language	English / Spanish
			W/ Warranty	Yes
		Remote Control Unit		Yes
		Rod Antenna		No
			Poles	
			Terminal	
		Loop Antenna		No
			Terminal	-
		U/V Mixer		No
		DC Car Cord (Center+)		No
		Guarantee Card		No
		Warning Sheet		No
		Circuit Diagram		No
		Antenna Change Plug		No
		Service Station List		No
		Important Safety Instruction		No
		Dew/AHC Caution Sheet		No
		AC Plug Adapter		No
		Quick Set-up Sheet		No
		Battery		Yes
			UM size x pcs	UM-4 x 2
			OEM Brand	No
		AC Cord		No
		AV Cord (2Pin-1Pin)		No
		Registration Card (NDL Card)		Yes
		PTB Sheet		No
		ESP Card		No
		300 ohm to 75 ohm Antenna Adapter		No
		Information Sheet(for HDMI)		No

GENERAL SPECIFICATIONS

G-13	**Interface**	Switch	Front	Power	Yes
				Channel Up/Menu Up	Yes
				Channel Down/Menu Down	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
		Indicator		Power	Yes(RED)
				Stand-by	No
				On Timer	No
		Terminals	Front	Video Input = VIDEO3	RCA
				Audio Input = VIDEO3	RCA x 2
				S Input = VIDEO3	Yes
				Other Terminal	No
			Rear	Video Input(Rear1) = VIDEO1	RCA
				Video Input(Rear2) = VIDEO2	RCA
				S Input = VIDEO1	Yes
				S Input = VIDEO2	Yes
				Audio Input(Rear1) = VIDEO1	RCA x 2
				Audio Input(Rear2) = VIDEO2	RCA x 2
				Video Output	RCA
				Audio Output	RCA x 2 (Variable)
				Component Input1(w/ Analog Audio L/R)	RCA x 5
				Component Input2(w/ Analog Audio L/R)	RCA x 5
				HDMI Input1(w/ Analog Audio L/R)	HDMI x 1(RCA x 2)
				HDMI Input2(w/ Analog Audio L/R)	No
				Diversity	No
				Ext Speaker	No
				VHF/UHF Antenna Input	F Type
				AC Outlet	No
G-14	**Set Size**			Approx. W x D x H (mm)	896 x 613 x 620
G-15	**Weight**			Net (Approx.)	67.5 kg (148.8 lbs)
				Gross (Approx.)	75.2 kg (165.8 lbs)
G-16	**Carton**		Master Carton		No
				Content	---- Sets
				Material	-- /--
				Dimensions W x D x H(mm)	-- x -- x --
				Description of Origin	No
			Gift Box	Material	Double/Brown
				Dimensions W x D x H(mm)	1,033 x 790 x 771
				Description of Origin	No
			Drop Test		Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces
				Height (cm)	40 (ORION SPEC:25)
			Container Stuffing		90 Sets/40' container
G-17	**Cabinet Material**		Cabinet	Cabinet Front	PS 94V0 DECABROM
				Cabinet Rear	PS 94V0 NON-DECABROM
			PCB	Non-Halogen Demand	No
				Eyelet Demand	Yes
G-18	**Environment**		Environmental standard requirement (by buyer)		Green procurement of TOSHIBA
			Pb-free		Phase3(Ph

GENERAL SPECIFICATIONS

G-1	**TV System**	CRT	CRT Size / Visual Size	34 inch / 860mmV
			CRT Type	Flat (16:9)
			Magnetic Field BV/BH	+0.45G/0.18G
		Color System		NTSC
		Display Capability		1080i/540p
		Speaker		2 Speaker
			Position	Front Bottom
			Size	2.0 x 4.7 Inch
			Impedance	4 ohm
		Sound Output	MAX	10W+10W
			10%(Typical)	- W
		NTSC3.58+4.43 /PAL60Hz		No
G-2	**Tuning System**	Broadcasting System		US System M
		Tuner and Receive CH	System	1Tuner
			Destination	USA(W/ CABLE)
			Input Impedance	VHF/UHF 75 ohm
			CH Coverage	2 - 69, 4A, A-5 - A-1, A - I, J - W, W+1 - W+84
		Intermediate Frequency	Picture(FP)	45.75MHz
			Sound(FS)	41.25MHz
			FP-FS	4.50MHz
		Preset CH		No
		Stereo/Dual TV Sound		Yes
		Tuner Sound Muting		Yes
G-3	**Power**	Power Source	AC	120V AC 60Hz
			DC	
		Power Consumption	at AC	
				195 W at AC 120 V 60 Hz
			Stand by (at AC)	1 W at AC 120 V 60 Hz
			Per Year	-- kWh/Year
		Protector	Power Fuse	Yes
			Safety Circuit	Yes
			IC Protector(Micro Fuse)	Yes
G-4	**Regulation**		Safety	CSA
			Radiation	IC
			X-Radiation	HWC
G-5	**Temperature**		Operation	+5oC ~ +40oC
			Storage	-20oC ~ +60oC
G-6	**Operating Humidity**			Less than 80% RH

GENERAL SPECIFICATIONS

G-7	**On Screen Display**	Menu			Yes	
			Menu Type		Icon	
			Picture		Yes	
				Mode(Picture preference)	Yes	
				Brightness	Yes	
				Contrast	Yes	
				Color	Yes	
				Tint	Yes	
				Sharpness	Yes	
				Color Temperature	Yes	
				Display Format	Yes	
				Cable Clear	Yes	
				SVM	Yes	
				Reset	Yes	
			Audio		Yes	
				MTS	Yes	
				Bass	Yes	
				Treble	Yes	
				Balance	Yes	
				Stable Sound	Yes	
				Speakers On/Off	Yes	
				Dolby Virtual		No
				WOW SRS 3D		No
				WOW Focus		No
				WOW Tru Bass		No
				BBE	Yes	
				HDMI1	Yes	
				HDMI2		No
				Reset	Yes	
			Setup		Yes	
				Language	Yes	
				Clock Set	Yes	
				TV/CABLE	Yes	
				CH Program	Yes	
				Add/ Erase	Yes	
				Closed Caption	Yes	
				Picture Size	Yes	
				Picture Scroll	Yes	
				Cinema Mode	Yes	
				Aspect	Yes	
				Image Tilt	Yes	
			Option		Yes	
				On/Off Timer	Yes	
				Favorite CH	Yes	
				CH Label	Yes	
				VIDEO Label	Yes	
			Locks		Yes	
				V-Chip		No
				Lock (CH Lock, Video Lock, Game Timer)	Yes	
				Front Panel Lock	Yes	
				New Password	Yes	
			Control Level		Yes	
				Volume	Yes	
				Contrast	Yes	
				Brightness	Yes	
				Color	Yes	
				Tint	Yes	
				Sharpness	Yes	
				Bass	Yes	
				Treble	Yes	
				Balance	Yes	
				Image Tilt	Yes	
				Picture Scroll	Yes	
			Stereo, SAP, Mono		Yes	
			Video		Yes	
			Color Stream(Component)		Yes	
			HDMI		Yes	
			Channel(TV/Cable)		Yes	
			CH Label		Yes	
			Video Label		Yes	
			Clock		Yes	
			Game Timer		Yes	
			Front Panel Lock		Yes	
			On/Off Timer		Yes	
			Sleep Timer		Yes	
			Reset		Yes	
			Sound Mute		Yes	
			V-chip Rating			No
			NOT AVAILABLE		Yes	
			Picture Size		Yes	

GENERAL SPECIFICATIONS

G-8	**OSD Language**			English French Spanish
G-9	**Clock and Timer**	Sleep Timer	Max Time	120 Min
			Step	10 Min
		On/Off Timer	Program	Yes
		Wake Up Timer		No
		Timer Back-up (at Power Off Mode) more than		-- Min Sec
G-10	**Remote Control**	Unit		RC-KK
		Glow in Dark Remocon		Yes
		Back Light Remocon		No
		Remocon Format		Toshiba
		Format		Toshiba
		Custom Code		TV:40-BFh
		Power Source	Voltage(D.C)	3V
			UM size x pcs	UM-4 x 2 pcs
		Total Keys		44 Keys
		Keys	Power	Yes
			1	Yes
			2	Yes
			3	Yes
			4	Yes
			5	Yes
			6	Yes
			7	Yes
			8	Yes
			9	Yes
			0	Yes
			100 /+10	Yes
			CH Up	Yes
			CH Down	Yes
			Volume Up	Yes
			Volume Down	Yes
			TV/Video(Input Select)	Yes
			ENT,CH RTN(Quick View)	Yes
			Menu > / FAV Up	Yes
			Menu < / FAV Down	Yes
			Menu Up	Yes
			Menu Down	Yes
			Mute	Yes
			PIC SIZE (16:9)	Yes
			Sleep	Yes
			Exit	Yes
			Light	No
		Multi Brand Keys	TV	Yes
			CBL/SAT	Yes
			VCR	Yes
			DVD	Yes
		(DVD Keys)	Enter	Yes
			DVD Clear	Yes
			Top MENU	Yes
		(TV / DVD Keys)	RECALL(Call) / (Display)	Yes
			Menu/Enter / DVD MENU	Yes
		(DVD / VCR Keys)	Pause/Still	Yes
			FF	Yes
			Rew	Yes
			Play	Yes
			Stop	Yes
			<</Skip / Search Forward	Yes
			>>/Skip / Search Forward	Yes
		(VCR Keys)	Rec	Yes
			TV/VCR	Yes

GENERAL SPECIFICATIONS

G-11	**Features**	Auto Shut Off	Yes
		Power On Memory	Yes
		CABLE	Yes
		Memory(Last CH)	Yes
		Memory(Last Volume)	Yes
		V-Chip	No
		Type	--- Type
		SRS WOW(SRS 3D/Focus/Tru Bass)	No
		Virtual Dolby	No
		BBE	Yes(Digital)
		Stable Sound	Yes
		Timer(On Timer /Off Timer/Sleep Timer)	Yes
		Aspect	Yes
		Cinema Mode	Yes
		Image Tilt	Yes
		Direct Input Selection	Yes
		Auto Search	No
		CH Lock	Yes
		CH Program	Yes
		CH Label	Yes
		SAP	Yes
		Just Clock Function	No
		VIDEO Label	Yes
		SVM Circuit	Yes
		Comb Filter	Yes 3 -D
		Super Wide Band AMP	No
		Cable Clear	Yes
		Hotel Lock	No
		Closed Caption	Yes
		FBT Leak Test Protect	Yes
		Video Lock	Yes
		Game Timer(Max Time:120Min)	Yes
		Energy Star	Yes
		Favorite CH	Yes
		Variable Audio Out	Yes
		Picture Size	Yes
		Color Temperature Control	Yes
		Mode(Picture Preference)	Yes
		Front Panel Lock	Yes
		Available Scan Rates (Component/HDMI)	480i/480p/720p/1080i
		Menu=Volume Up+Volume Down	Yes
		Auto Setup(Language/CH Program)	Yes
G-12	**Accessories**	Owner's Manual Language	English / French
		W/ Warranty	Yes
		Remote Control Unit	Yes
		Rod Antenna	No
		Poles	
		Terminal	
		Loop Antenna	No
		Terminal	-
		U/V Mixer	No
		DC Car Cord (Center+)	No
		Guarantee Card	No
		Warning Sheet	No
		Circuit Diagram	No
		Antenna Change Plug	No
		Service Station List	No
		Important Safety Instruction	No
		Dew/AHC Caution Sheet	No
		AC Plug Adapter	No
		Quick Set-up Sheet	No
		Battery	Yes
		UM size x pcs	UM-4 x 2
		OEM Brand	No
		AC Cord	No
		AV Cord (2Pin-1Pin)	No
		Registration Card (NDL Card)	No
		PTB Sheet	No
		ESP Card	No
		300 ohm to 75 ohm Antenna Adapter	No
		Information Sheet(for HDMI)	No

GENERAL SPECIFICATIONS

G-13	**Interface**	Switch	Front	Power	Yes
				Channel Up/Menu Up	Yes
				Channel Down/Menu Down	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
		Indicator		Power	Yes(RED)
				Stand-by	No
				On Timer	No
		Terminals	Front	Video Input = VIDEO3	RCA
				Audio Input = VIDEO3	RCA x 2
				S Input = VIDEO3	Yes
				Other Terminal	No
			Rear	Video Input(Rear1) = VIDEO1	RCA
				Video Input(Rear2) = VIDEO2	RCA
				S Input = VIDEO1	Yes
				S Input = VIDEO2	Yes
				Audio Input(Rear1) = VIDEO1	RCA x 2
				Audio Input(Rear2) = VIDEO2	RCA x 2
				Video Output	RCA
				Audio Output	RCA x 2 (Variable)
				Component Input1(w/ Analog Audio L/R)	RCA x 5
				Component Input2(w/ Analog Audio L/R)	RCA x 5
				HDMI Input1(w/ Analog Audio L/R)	HDMI x 1(RCA x 2)
				HDMI Input2(w/ Analog Audio L/R)	No
				Diversity	No
				Ext Speaker	No
				VHF/UHF Antenna Input	F Type
				AC Outlet	No
G-14	**Set Size**			Approx. W x D x H (mm)	896 x 613 x 620
G-15	**Weight**			Net (Approx.)	67.5 kg (148.8 lbs)
				Gross (Approx.)	75.2 kg (165.8 lbs)
G-16	**Carton**		Master Carton		No
				Content	---- Sets
				Material	-- /--
				Dimensions W x D x H(mm)	-- x -- x --
				Description of Origin	No
			Gift Box	Material	Double/Brown
				Dimensions W x D x H(mm)	1,033 x 790 x 771
				Description of Origin	No
			Drop Test		Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces
				Height (cm)	40 (ORION SPEC:25)
			Container Stuffing		90 Sets/40' container
G-17	**Cabinet Material**		Cabinet	Cabinet Front	PS 94V0 DECABROM
				Cabinet Rear	PS 94V0 NON-DECABROM
			PCB	Non-Halogen Demand	No
				Eyelet Demand	Yes
G-18	**Environment**		Environmental standard requirement (by buyer)		Green procurement of TOSHIBA
			Pb-free		Phase3(Ph

DISASSEMBLY INSTRUCTIONS

1. REMOVAL OF ANODE CAP

Read the following **NOTED** items before starting work.

* After turning the power off there might still be a potential voltage that is very dangerous. When removing the Anode Cap, make sure to discharge the Anode Cap's potential voltage.
* Do not use pliers to loosen or tighten the Anode Cap terminal, this may cause the spring to be damaged.

REMOVAL

1. Follow the steps as follows to discharge the Anode Cap. **(Refer to Fig. 1-1.)**
   Connect one end of an Alligator Clip to the metal part of a flat-blade screwdriver and the other end to ground.
   While holding the plastic part of the insulated Screwdriver, touch the support of the Anode with the tip of the Screwdriver.
   A cracking noise will be heard as the voltage is discharged.

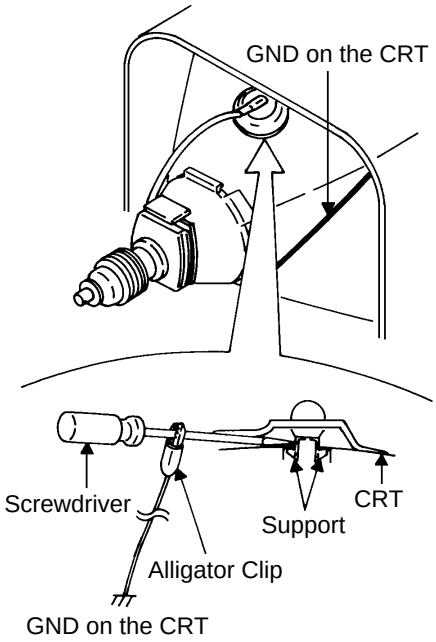


Fig. 1-1

2. Flip up the sides of the Rubber Cap in the direction of the arrow and remove one side of the support. **(Refer to Fig. 1-2.)**

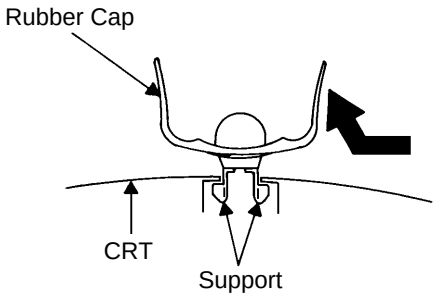


Fig. 1-2

3. After one side is removed, pull in the opposite direction to remove the other.

NOTE

Take care not to damage the Rubber Cap.

INSTALLATION

1. Clean the spot where the cap was located with a small amount of alcohol. **(Refer to Fig. 1-3.)**

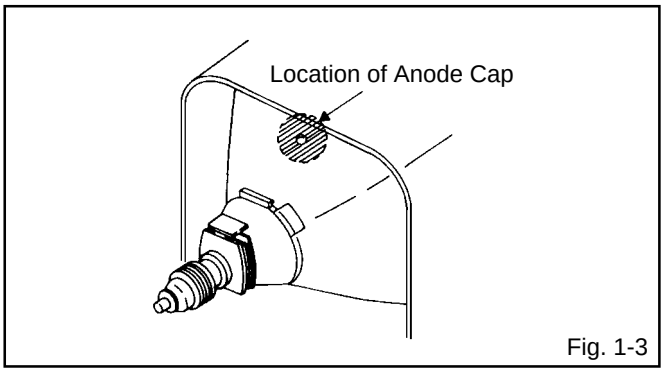


Fig. 1-3

NOTE

Confirm that there is no dirt, dust, etc. at the spot where the cap was located.

2. Arrange the wire of the Anode Cap and make sure the wire is not twisted.
3. Turn over the Rubber Cap. **(Refer to Fig. 1-4.)**

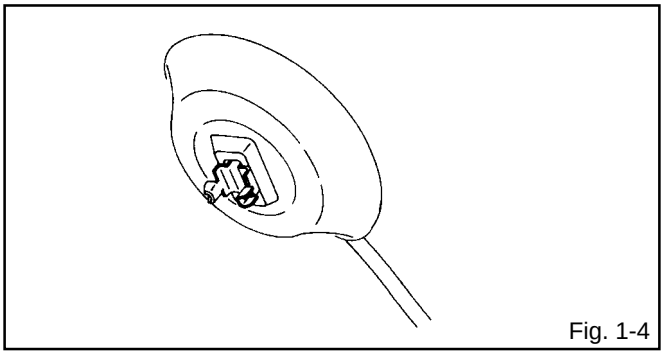


Fig. 1-4

4. Insert one end of the Anode Support into the anode button, then the other as shown in **Fig. 1-5**.

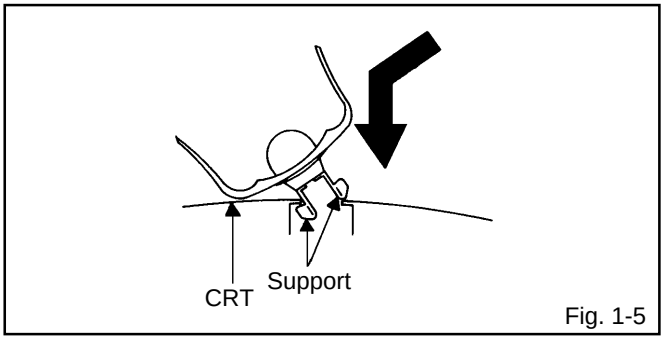


Fig. 1-5

5. Confirm that the Support is securely connected.
6. Put on the Rubber Cap without moving any parts.

DISASSEMBLY INSTRUCTIONS

2. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. **(Refer to Fig. 2-1.)**

   NOTE

   Masking is carried out on all the parts located within 10 mm distance from IC leads.

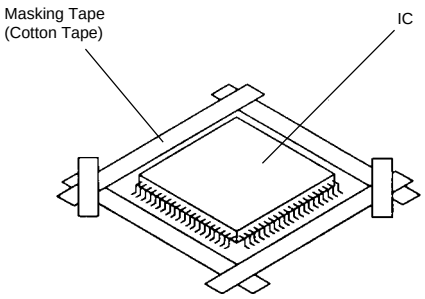


Fig. 2-1

2. Heat the IC leads using a blower type IC desoldering machine. **(Refer to Fig. 2-2.)**

   NOTE

   Do not rotate or move the IC back and forth , until IC can move back and forth easily after desoldering the leads completely.

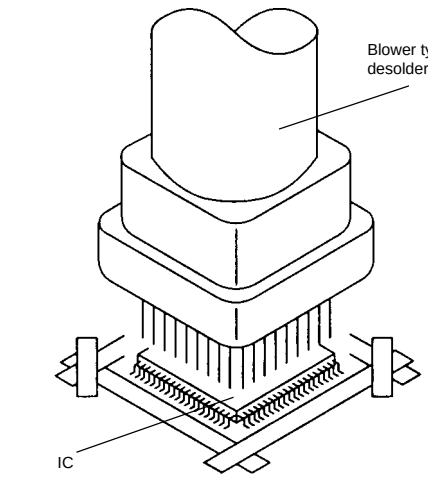


Fig. 2-2

3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 2-3.)**

   NOTE

   Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.

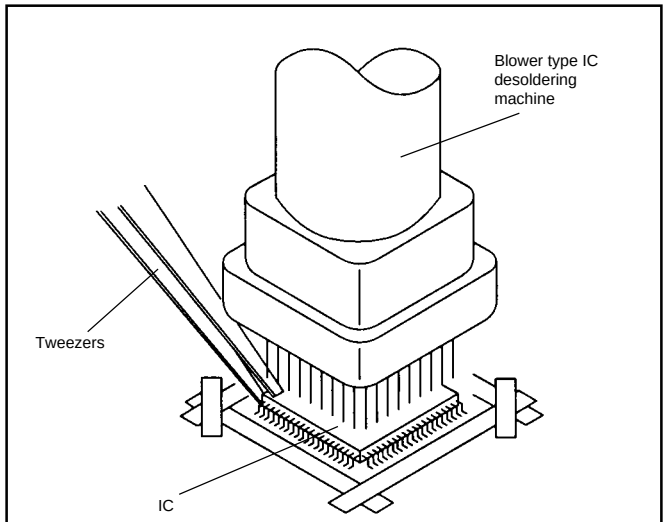


Fig. 2-3

4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 2-4.)**

   NOTE

   Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.

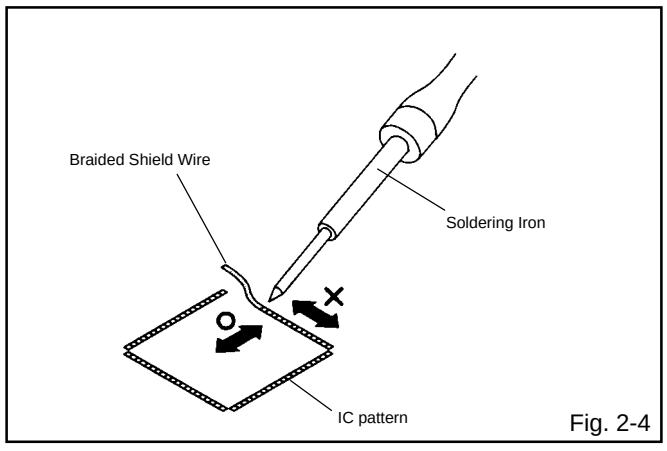


Fig. 2-4

DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. **(Refer to Fig. 2-5.)**

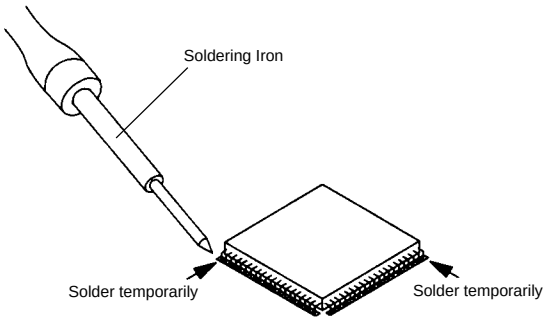


Fig. 2-5

2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. **(Refer to Fig. 2-6.)**

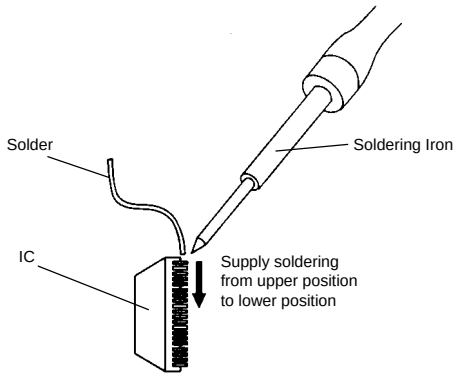


Fig. 2-6

3. Absorb the solder left on the lead using the Braided Shield Wire. **(Refer to Fig. 2-7.)**

   NOTE

   Do not absorb the solder to excess.

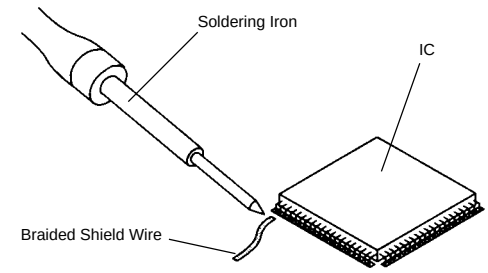


Fig. 2-7

4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. **(Refer to Fig. 2-8.)**

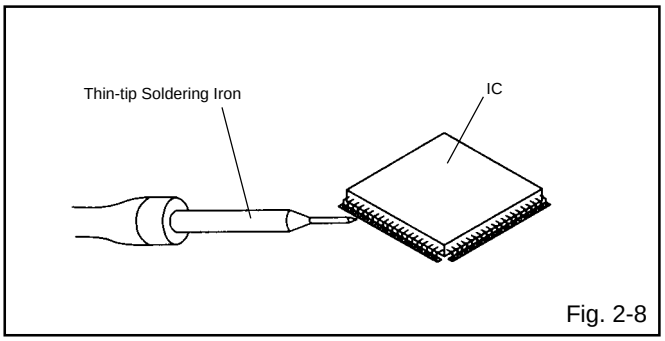


Fig. 2-8

5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass.
   Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

   NOTE

   When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

SERVICE MODE LIST

This unit provided with the following SERVICE MODES so you can repair, examine and adjust easily.
To enter to the Service Mode, press both set key and remote control key for more than 2 seconds.

Set Key	Remocon Key	Operations
VOL. (-) MIN	0	Releasing of V-CHIP PASSWORD.
VOL. (-) MIN	1	Initialization of factory data. NOTE: Do not use this for the normal servicing. If you set a factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
VOL. (-) MIN	6	POWER ON total hours is displayed on the screen. Refer to the "CONFIRMATION OF HOURS USED". Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
VOL. (-) MIN	9	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

CONFIRMATION OF HOURS USED

POWER ON total hours can be checked on the screen. Total hours are displayed in 16 system of notation.

NOTE: If you set a factory initialization, the total hours is reset to "0".

1. Set the VOLUME to minimum.
2. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds.
3. After the confirmation of using hours, turn off the power.

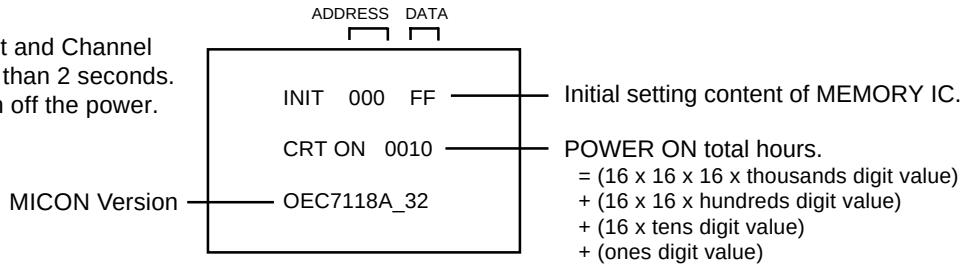

ADDRESS
DATA
INIT 000 FF
Initial setting content of MEMORY IC.
CRT ON 0010
POWER ON total hours.
= (16 x 16 x 16 x thousands digit value)
+ (16 x 16 x hundreds digit value)
+ (16 x tens digit value)
+ (ones digit value)
MICON Version
OEC7118A_32

FIG. 1

WHEN REPLACING EEPROM (MEMORY) IC

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1.

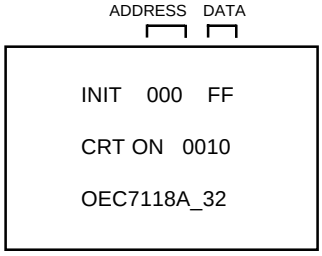


FIG. 1

***1**

INI	USA	CANADA
0000	FF	7F

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
0000	*1	A2	05	C1	E6	1C	87	98	42	E4	B3	03	0D	36	03	00
0010	01	05	1F	24	40	45	5D	62	45	4A	67	0F	15	0A	AA	64
0020	8E	00	00	00	00	00	00	00	88	1A	00	5A	98	33	04	76
0030	77	05	04	22	10	07	00	22	75	81	03	07	06	40	40	40
0040	8F	C0	40	00	27	0A	0A	00	13	40	00	51	70	72	99	59
0050	68	99	5B	00	73	14	1F	2D	24	16	00	00	00	00	00	F6
0060	EF	DB	DB	DB	15	00	00	26	06	07	09	00	C9	C8	E8	BC
0070	40	0F	00	21	66	77	00	00	00	0F	1E	6D	FF	FF	FA	FA
0080	FF	C0	52	50	8B	00	06	06	22	00	96	8B	6C	90	22	00
0090	11	F0	00	07	00	00	00	B6	01	48	33	23	27	2A	2D	30
00A0	33	36	39	3C	3F	42	45	48	4B	4E	51	53	55	57	58	59
00B0	5A	5B	5C	5D	5E	5F	61	63	65	67	69	6A	6B	6C	6D	6E
00C0	6F	70	71	71	72	72	73	73	74	74	75	75	75	75	76	76
00D0	76	76	77	77	77	77	78	78	78	78	79	42	00	00	00	08
00E0	15	18	11	14	E0	E6	F5	2B	38	FF	17	31	36	40	00	3F
00F0	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
0100	DC	F1	21	66	66	0C	71	69	33	00	0E	38	22	66	DA	71
0110	69	33	00	22	00	77	5E	99	60	03	82	88	88	00	82	01
0120	00	03	82	03	82	0F	85	00	82	8D	83	00	82	D0	01	82
0130	00	82	00	82	0D	00	05	11	00	11	00	11	1A	00	1C	00
0140	00	92	00	00	00	25	1E	F4	05	16	A4	5E	5E	00	7F	7F
0150	00	7E	7E	0E	0A	00	00	00	00	84	00	00	00	00	00	83
0160	00	00	00	00	00	00	00	00	00	00	FF	FF	FF	FF	FF	FF
0170	FF	FF	FB	00	10	01	FB	00	20	01	FB	00	4D	01	FB	00
0180	2A	01	FB	00	10	01	FB	00	05	01	FB	00	19	01	FB	00
0190	42	01	FB	00	27	01	FB	00	05	01	77	77	77	..	..	..

Table 1

WHEN REPLACING EEPROM (MEMORY) IC

1. Enter DATA SET mode by setting VOLUME to minimum.
2. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds. ADDRESS and DATA should appear as FIG 1.
3. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
4. Press RIGHT/LEFT button to select DATA. When DATA is selected, it will "blink".
5. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
6. Pressing RIGHT/LEFT button will take you back to ADDRESS for further selection if necessary.
7. Repeat steps 3 to 6 until all data has been checked.
8. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

9. Turn POWER on.
10. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
11. After the finishing of the initializing of shipping, the unit will turn off automatically.

The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

- Use an isolation transformer when performing any service on this chassis.
- Before removing the anode cap, discharge electricity because it contains high voltage.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor.)

Prepare the following measurement tools for electrical adjustments.

1. Oscilloscope
2. Digital Voltmeter
3. Multi-sound Generator
4. Pattern Generator

On-Screen Display Adjustment

1. In the condition of NO indication on the screen. Press the VOL. DOWN button on the set and the Channel button **(9)** on the remote control for more than 2 second to appear the adjustment mode on the screen as shown in **Fig. 1-1**.

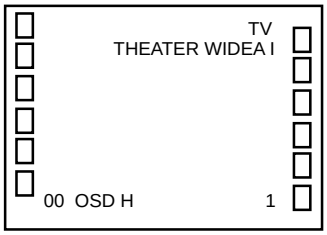


Fig. 1-1

3. Use the Channel UP/DOWN button or Channel button **(0-9)** on the remote control to select the options shown in **Fig. 1-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for AV, CS and HD-MI mode, press the TV/VIDEO button on the remote control to set to the AV, CS and HD-MI mode. Press the VOL.DOWN button on the set and the channel **(9)** on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION	NO.	FUNCTION
00	OSD H	20	CORNER	40	R-Y PHASE
01	CUT OFF	21	C.PARA	41	G-Y GAIN
02	H.POSI	22	C.SAW	42	G-Y PHASE
03	V.POSI	23	V.SYMM	43	BRI.CENT
04	H. SIZE	24	R.BIAS	44	BRI.MAX
05	V. SIZE	25	G.BIAS	45	BRI.MIN
06	V. LIN	26	B.BIAS	46	CONT.CENT
07	V-EHT	27	R/G.DRV	47	CONT.MAX
08	H-EHT	28	B/R.DRV	48	CONT.MIN
09	V-BLK P	29	R.BIAS(C)	49	COL.CENT
10	V-BLK S	30	G.BIAS(C)	50	COL.MAX
11	V.CENT	31	B.BIAS(C)	51	COL.MIN
12	V.LIMIT	32	R/G.DRV(C)	52	SUB CONT
13	V.CORR	33	B/R.DRV(C)	53	TINT
14	V.S.CORR	34	R.BIAS(W)	54	SHARP.CENT
15	EW PARA	35	G.BIAS(W)	55	SHARP.MAX
16	TRAPEZIUM	36	B.BIAS(W)	56	SHARP.MIN
17	COR.TOP	37	R/G.DRV(W)	57	TILT.CENT
18	COR.BTM	38	B/R.DRV(W)	58	TEST STEREO
19	S.CORR	39	R-Y GAIN	59	TEST AUDIO

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: CUT OFF

1. Place the set in Aging Test for more than 15 minutes.
2. Place the set in AV MODE without signal.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(01)** on the remote control to select "CUT OFF".
5. Adjust the **Screen Volume** until a dim raster is obtained.

2-2: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

1. Place the set in Aging Test for more than 10 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(24)** on the remote control to select “R.BIAS”.
5. Press the CH. UP/DOWN button on the remote control to select the “R.BIAS”, “G.BIAS”, “B.BIAS”, “R/G.DRV”, “B/R.DRV”, “R.BIAS(C)”, “G.BIAS(C)”, “B.BIAS(C)”, “R/G.DRV(C)”, “B/R.DRV(C)”, “R.BIAS(W)”, “G.BIAS(W)”, “B.BIAS(W)”, “R/G.DRV(W)” or “B/R.DRV(W)”.
6. Adjust the VOL. UP/DOWN button on the remote control to whiten the R.BIAS(C), G.BIAS(C), B.BIAS(C), R/G.DRV(C), B/R.DRV(C), R.BIAS(W), G.BIAS(W), B.BIAS(W), R/G.DRV(W) and B/R.DRV(W)”at each step tone sections equally.
7. Perform the above adjustments 5 and 6 until the white color is achieved.

ELECTRICAL ADJUSTMENTS

2-3: DOUBLE FOCUS

1. Receive the cross hatch signal from the Pattern Generator.
2. Turn the **F1 VR** and **F2 VR** fully clockwise once. **(Refer to Fig. 2-1)**
3. Adjust the **F1 VR** so that the screen becomes clearest. Then adjust the **F2 VR**.

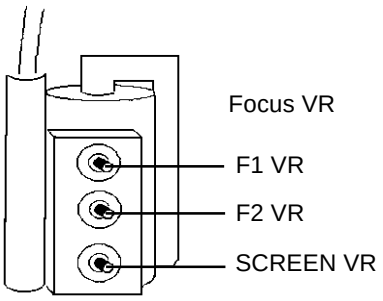


Fig. 2-1

2-4: OSD HORIZONTAL

1. Receive the monoscope pattern from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(00)** on the remote control to select "OSD H".
4. Press the LEFT/RIGHT button on the remote control until the difference of A and B becomes minimum. **(Refer to Fig. 2-2)**

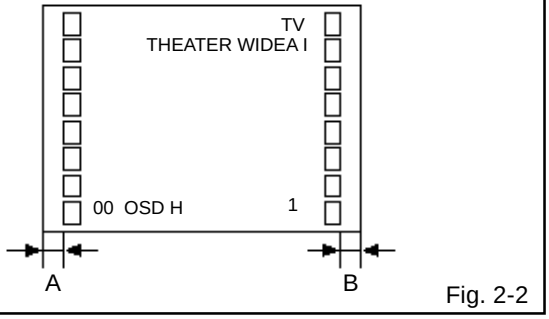


Fig. 2-2

2-5: HORIZONTAL POSITION/ HORIZONTAL SIZE

1. Receive the monoscope pattern.
2. Press the MENU button. And, then press the LEFT/ RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(02)** on the remote control to select "H.POSI".
7. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes becomes minimum.
8. Receive the monoscope pattern.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(04)** on the remote control to select “H. SIZE”.
10. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes 7.5%.

2-6: VERTICAL CENT/ VERTICAL SIZE

1. Receive the monoscope pattern.
2. Press the MENU button. And, then press the LEFT/ RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(11)** on the remote control to select “V. CENT”.
8. Press the VOL. UP/DOWN button on the remote control until the horizontal line becomes fit to the notch of the shadow mask.
9. Receive the monoscope pattern.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(05)** on the remote control to select “V. SIZE”.
11. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 8%.

ELECTRICAL ADJUSTMENTS

2-7: VERTICAL LINEARITY

NOTE: Adjust after performing adjustments in section 2-6. After the adjustment of Vertical Linearity, reconfirm the Vertical Position and Vertical Size adjustments.

1. Receive the monoscope pattern.
2. Press the MENU button. And, then press the LEFT/RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(06)** on the remote control to select “V. LIN”.
8. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 8%.

2-8: BRIGHT CENT

1. Receive the monoscope pattern. (RF Input)
2. Set the screen mode to FULL.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "BRI CENT".
5. Press the VOL. UP/DOWN button on the remote control until the white 2.7% is starting to be visible
6. Receive the monoscope pattern. (Audio Video Input)
7. Press the TV/VIDEO button on the remote control to set to the AV mode. Then perform the above adjustments 2~5.
8. Receive the monoscope pattern.
9. Press the TV/VIDEO button on the remote control to set to the CS mode.Then perform the above adjustments 2~5.
10. Receive the monoscope pattern.
11. Press the TV/VIDEO button on the remote control to set to the HD-MI mode.Then perform the above adjustments 2~5.

2-9: SUB CONTRAST

1. Set the screen mode to FULL.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(52)** on the remote control to select "SUB CONT".
3. Check if the step No. SUB CONT is "14".
4. Receive a broadcast and check if the picture is normal.
5. Press the TV/VIDEO button on the remote control to set to the AV mode. Then perform the above adjustments 2~4.
6. Receive a broadcast and check if the picture is normal.
7. Press the TV/VIDEO button on the remote control to set to the CS mode.Then perform the above adjustments 2~4.
8. Receive a broadcast and check if the picture is normal.
9. Press the TV/VIDEO button on the remote control to set to the HD-MI mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(52)** on the remote control to select "SUB CONT".
11. Check if the step No. SUB CONT is "16".
12. Receive a broadcast and check if the picture is normal.

2-10: E/W PARA

1. Receive the crosshatch signal from the Pattern Generator.
2. Set the screen mode to FULL.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(15)** on the remote control to select “E W PARA”.
5. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines become straight.
6. Set the screen mode to 4:3.
7. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines of the screen become parallel.

2-11: TRAPEZIUM

1. Receive the crosshatch signal from the Pattern Generator.
2. Press the MENU button. And, then press the LEFT/RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(16)** on the remote control to select “TRAPEZIUM”.
8. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines of the screen become parallel.

ELECTRICAL ADJUSTMENTS

2-12: COR TOP/BTM

1. Receive the crosshatch signal from the Pattern Generator.
2. Set the screen mode to FULL.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(17)** on the remote control to select “COR. TOP”.
5. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines become straight.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(18)** on the remote control to select “COR. BTM”.
7. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines of the screen become parallel.

2-13: CENTER SAW

1. Receive the crosshatch signal from the Pattern Generator.
2. Press the MENU button. And, then press the LEFT/RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(22)** on the remote control to select “C.SAW”.
7. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines of the screen become parallel.

2-14: CENTER PARA

1. Receive the crosshatch signal from the Pattern Generator.
2. Press the MENU button. And, then press the LEFT/RIGHT button on the remote control until the PICTURE menu appears.
3. Press the LEFT/RIGHT button on the remote control to highlight DISPLAY FORMAT.
4. Press the LEFT/RIGHT button on the remote control to select 1080i.
5. Set the screen mode to FULL.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(21)** on the remote control to select “C.PARA”.
7. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines become straight.

2-15: TINT/COLOR CENT

1. Receive the color bar pattern.
2. Connect the oscilloscope to **TP806**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(53)** on the remote control to select "TINT".
4. Press the VOL. UP/DOWN button on the remote control until the section "A" becomes as straight line. **(Refer to Fig. 2-3)**
5. Connect the oscilloscope to **TP805**.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(49)** on the remote control to select "COL.CENT".
7. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to 120 ± 10% of the white level. **(Refer to Fig. 2-4)**
8. Please check whether the waveform of TP806 is straight line. If is not a straight line, adjust to TINT again.
9. Receive the color bar pattern. (Audio Video Input)
10. Press the TV/VIDEO button on the remote control to set to the AV mode. Then perform the above adjustments 2~8.
11. Receive the color bar pattern.
12. Press the TV/VIDEO button on the remote control to set to the CS mode. Then perform the above adjustments 2~8.
13. Receive the color bar pattern.
14. Press the TV/VIDEO button on the remote control to set to the HD-MI mode. Then perform the above adjustments 2~8.

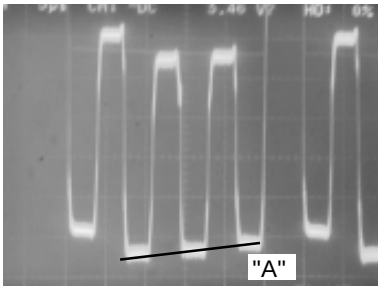


Fig. 2-3

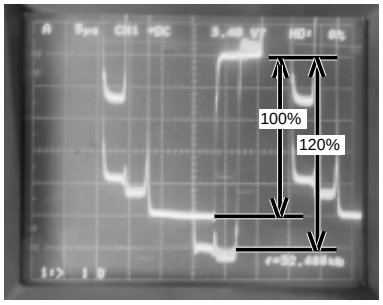


Fig. 2-4

ELECTRICAL ADJUSTMENTS

2-16: TILT

1. Connect the digital voltmeter between **W843** and **W844**.
2. Receive the crosshatch signal from the Pattern Generator.
3. Press the PIC SIZE button on the remote control to select the FULL screen mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(57)** on the remote control to select “TILT CENT”.
6. Press the VOL. UP/DOWN button on the remote control until the voltage become minimum(0V).

2-17: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of the each adjustment items are set correctly referring below.

NO.	FUNCTION	RF	AV	CS	HD-MI
03	V.POSI	01	01	01	01
07	V-EHT	06	06	06	06
08	H-EHT	06	06	06	06
09	V-BLK P	31	31	31	31
10	V-BLK S	00	00	00	00
12	V.LIMIT	00	00	00	00
13	V.CORR	02	02	02	02
14	C.S.CORR	30	30	30	30
19	S.CORR	16	16	16	16
20	CORNER	21	21	21	21
23	V.SYMM	128	128	128	128
39	R-Y GAIN	08	08	08	08
40	R-Y PHASE	03	03	03	03
41	G-Y GAIN	05	05	05	05
42	G-Y PHASE	00	00	00	00
44	BRI.MAX	240	240	240	240
45	BRI.MIN	50	50	50	50
46	CONT.CENT	70	70	70	70
47	CONT.MAX	80	80	80	80
48	CONT.MIN	50	50	50	50
50	COL.MAX	127	127	127	127
51	COL.MIN	00	00	00	00
54	SHARP.CENT	60	60	60	60
55	SHARP.MAX	100	100	100	100
56	SHARP.MIN	00	00	00	00
58	TEST STEREO	00	00	00	00
59	TEST AUVIO	00	00	00	00

ELECTRICAL ADJUSTMENTS

3. PURITY AND CONVERGENCE ADJUSTMENTS

NOTE

1. Turn the unit on and let it warm up for at least 30 minutes before performing the following adjustments.
2. Place the CRT surface facing east or west to reduce the terrestrial magnetism.
3. Turn ON the unit and demagnetize with a Degauss Coil.

3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT)

1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. **(Refer to Fig. 3-1)**
   If the deflection yoke and magnet are in one body, untighten the screw for the body.
2. Receive the green raster pattern from the color bar generator.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green, with red and blue on the sides, using the pair of purity magnets.
5. Switch the color bar generator from the green raster pattern to the crosshatch pattern.
6. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch pattern to change to white by repeating steps 6 and 7.

3-2: PURITY

NOTE

Adjust after performing adjustments in section 3-1.

1. Receive the green raster pattern from color bar generator.
2. Adjust the pair of purity magnets to center the color on the screen.
   Adjust the pair of purity magnets so the color at the ends are equally wide.
3. Move the deflection yoke backward (to neck side) slowly, and stop it at the position when the whole screen is green.
4. Confirm red and blue color.
5. Adjust the slant of the deflection yoke while watching the screen, then tighten the fixing screw.

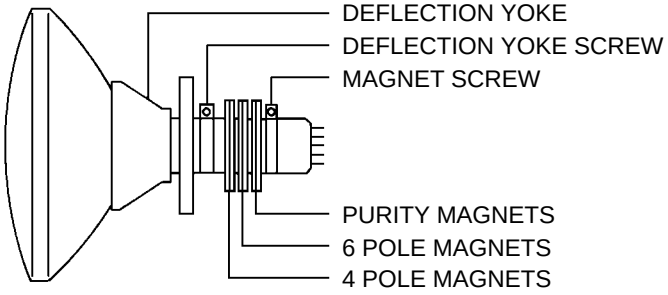


Fig. 3-1

3-3: STATIC CONVERGENCE

NOTE

Adjust after performing adjustments in section 3-2.

1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE

Adjust after performing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and right/left. **(Refer to Fig. 3-2-a)**
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke. **(Refer to Fig. 3-2-b)**

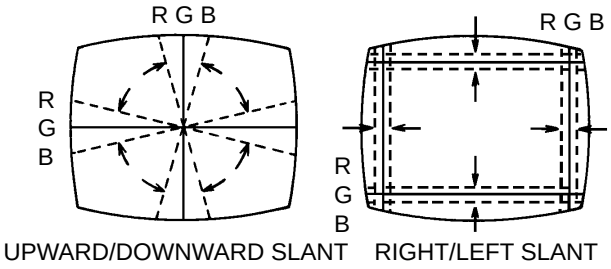
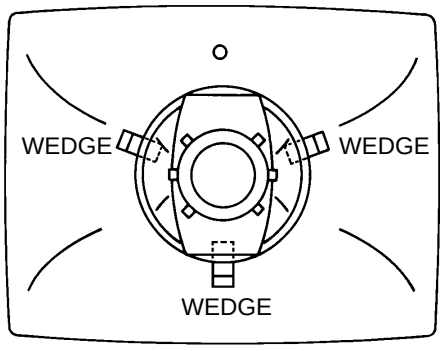


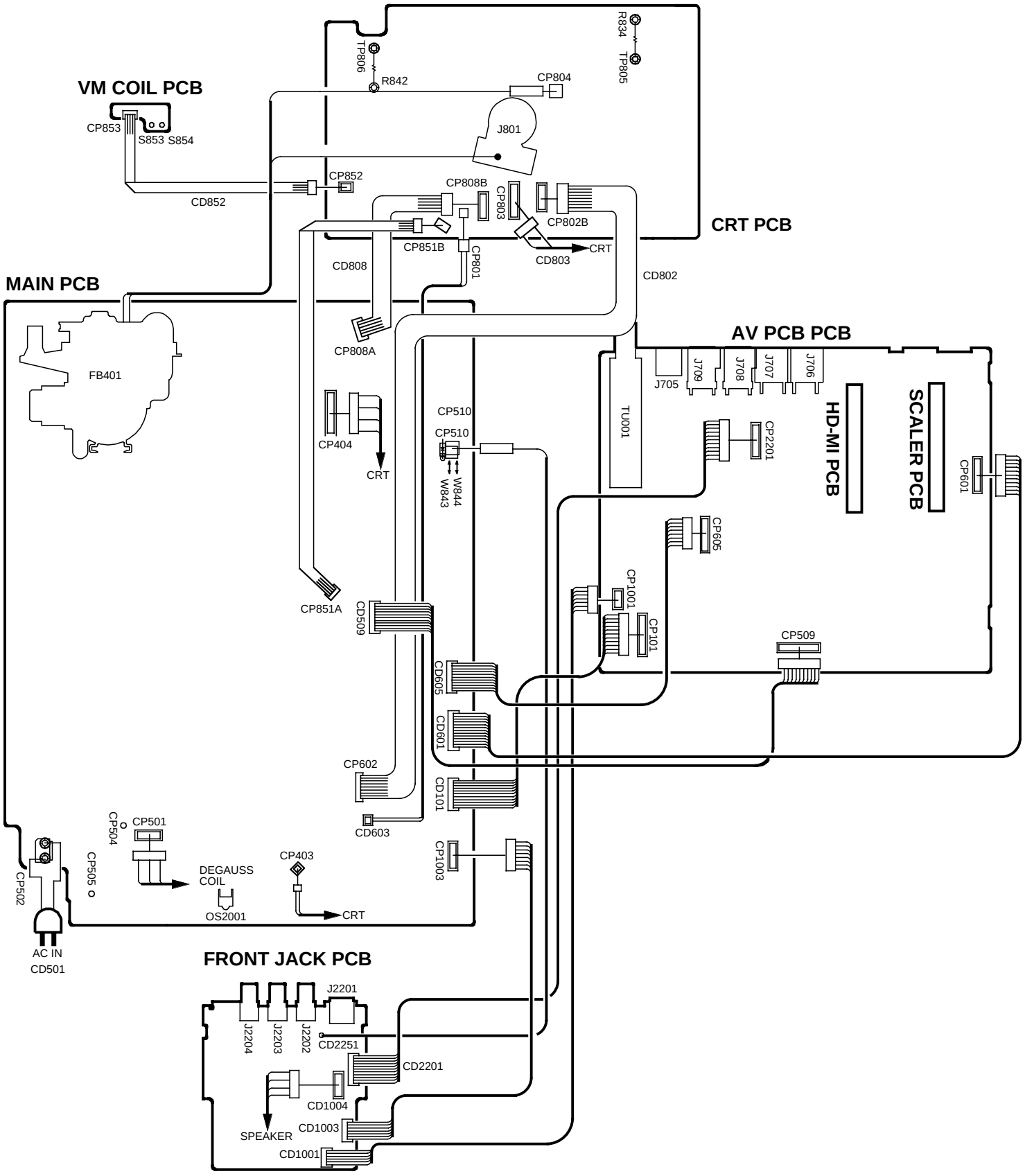
Fig. 3-2-a



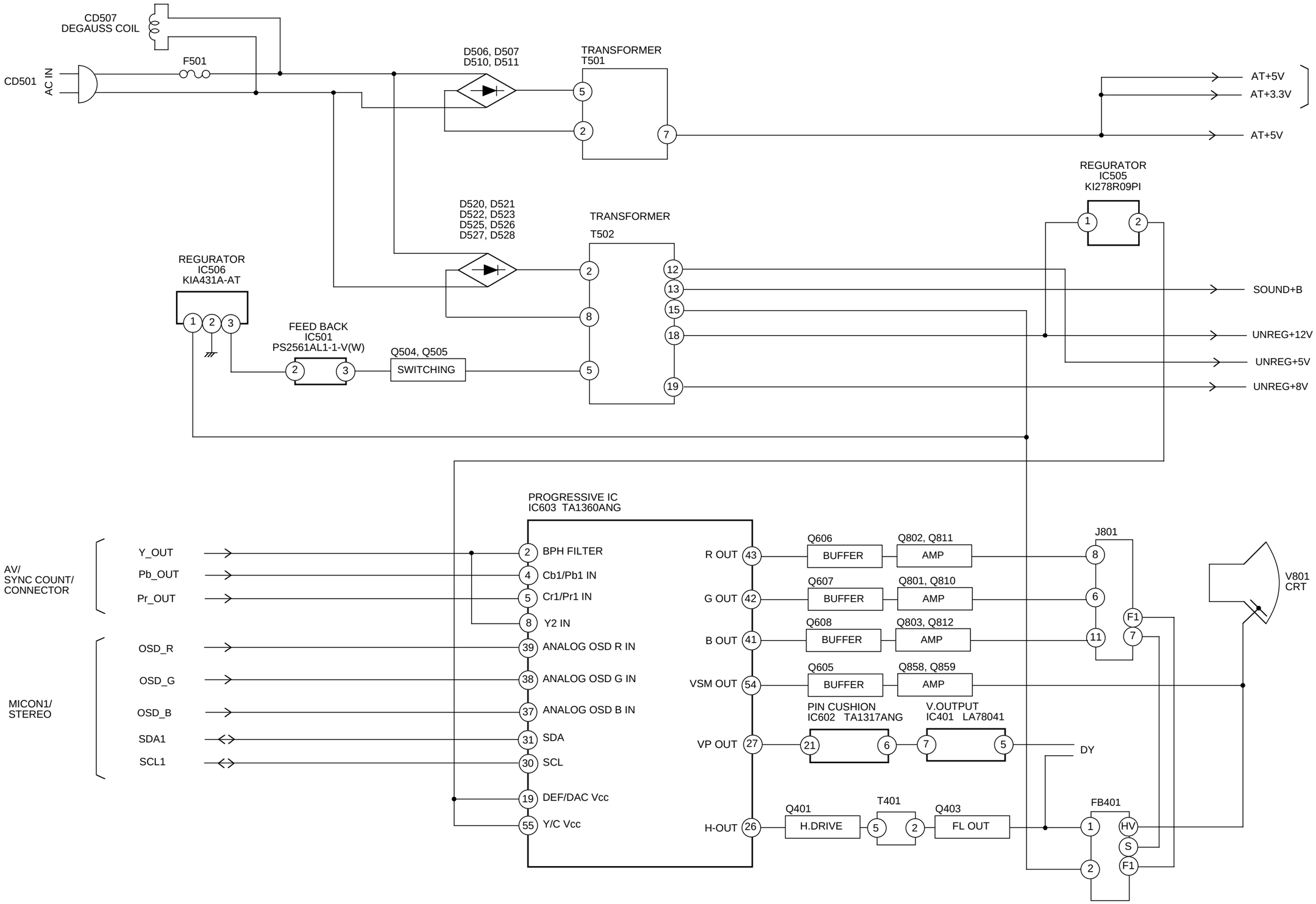
WEDGE POSITION

Fig. 3-2-b

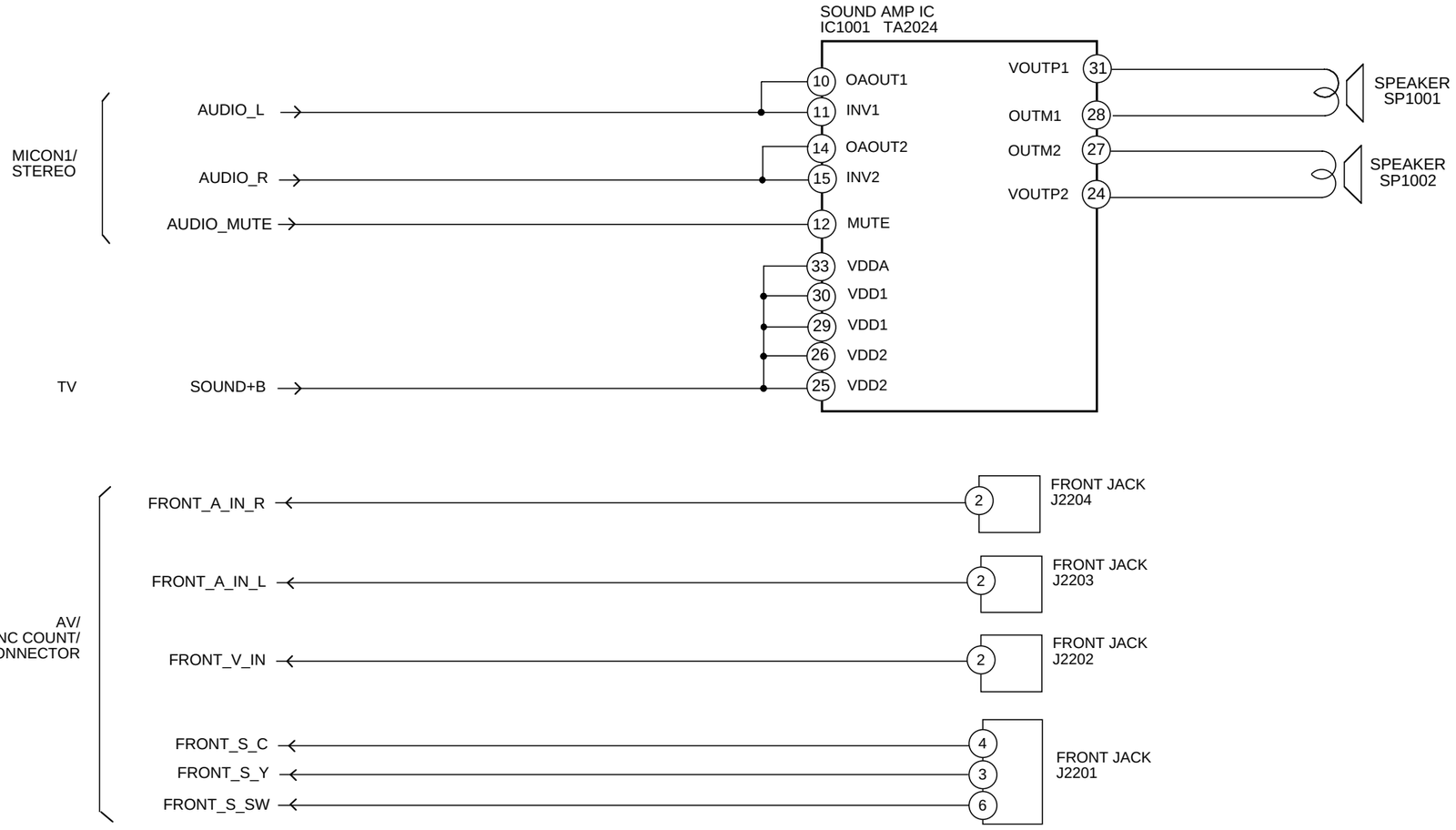
4. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



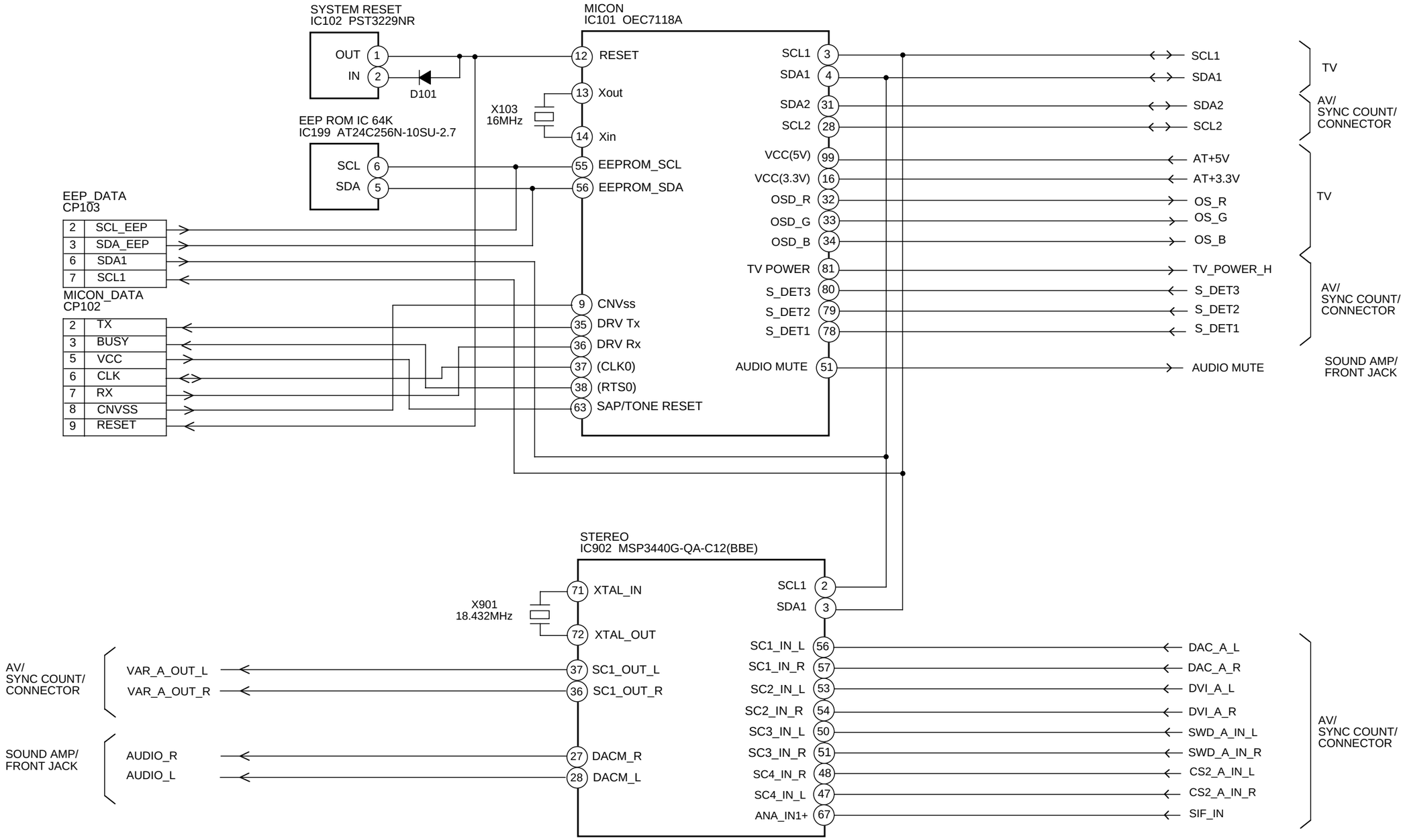
TV BLOCK DIAGRAM



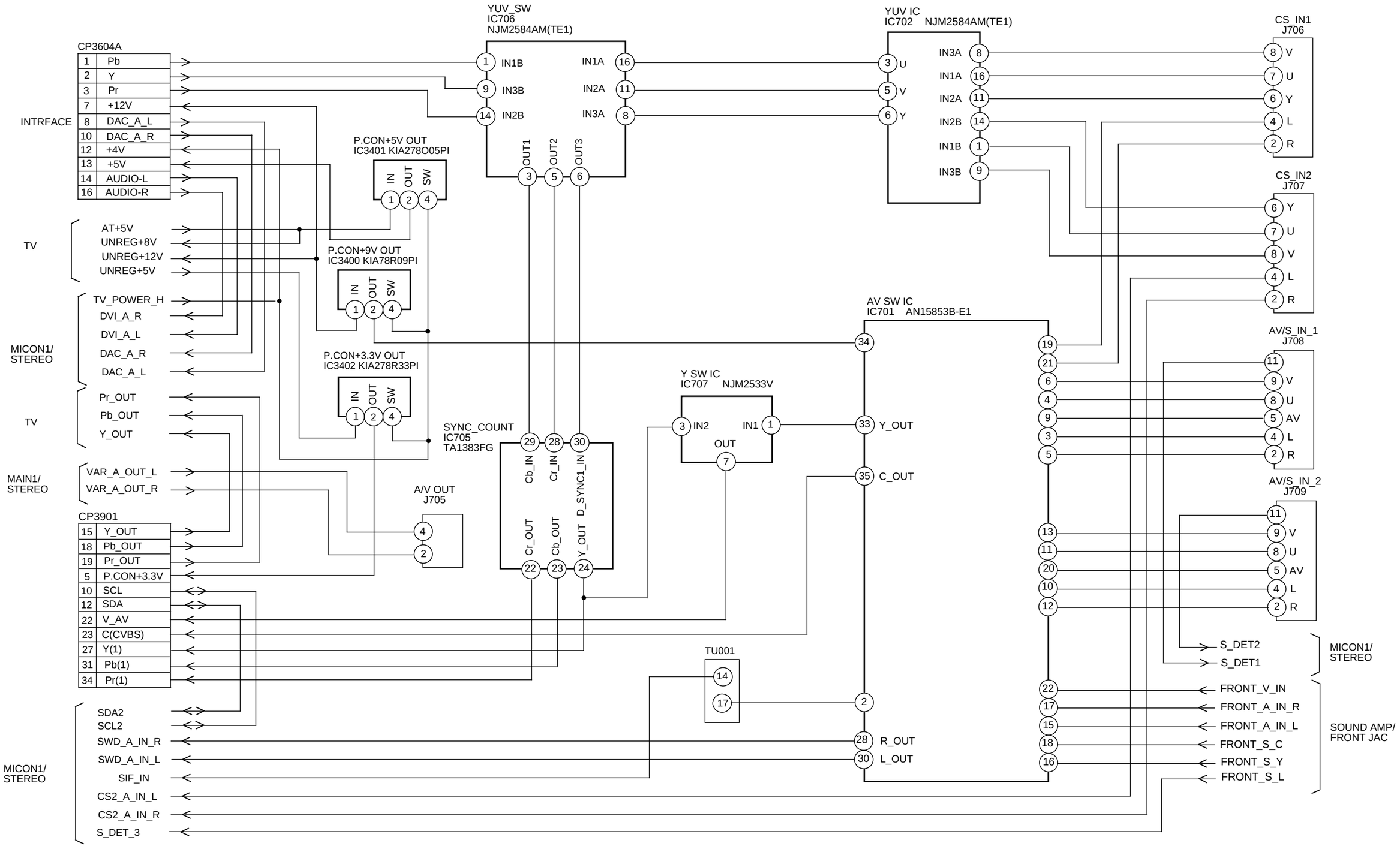
SOUND AMP/FRONT JACK BLOCK DIAGRAM



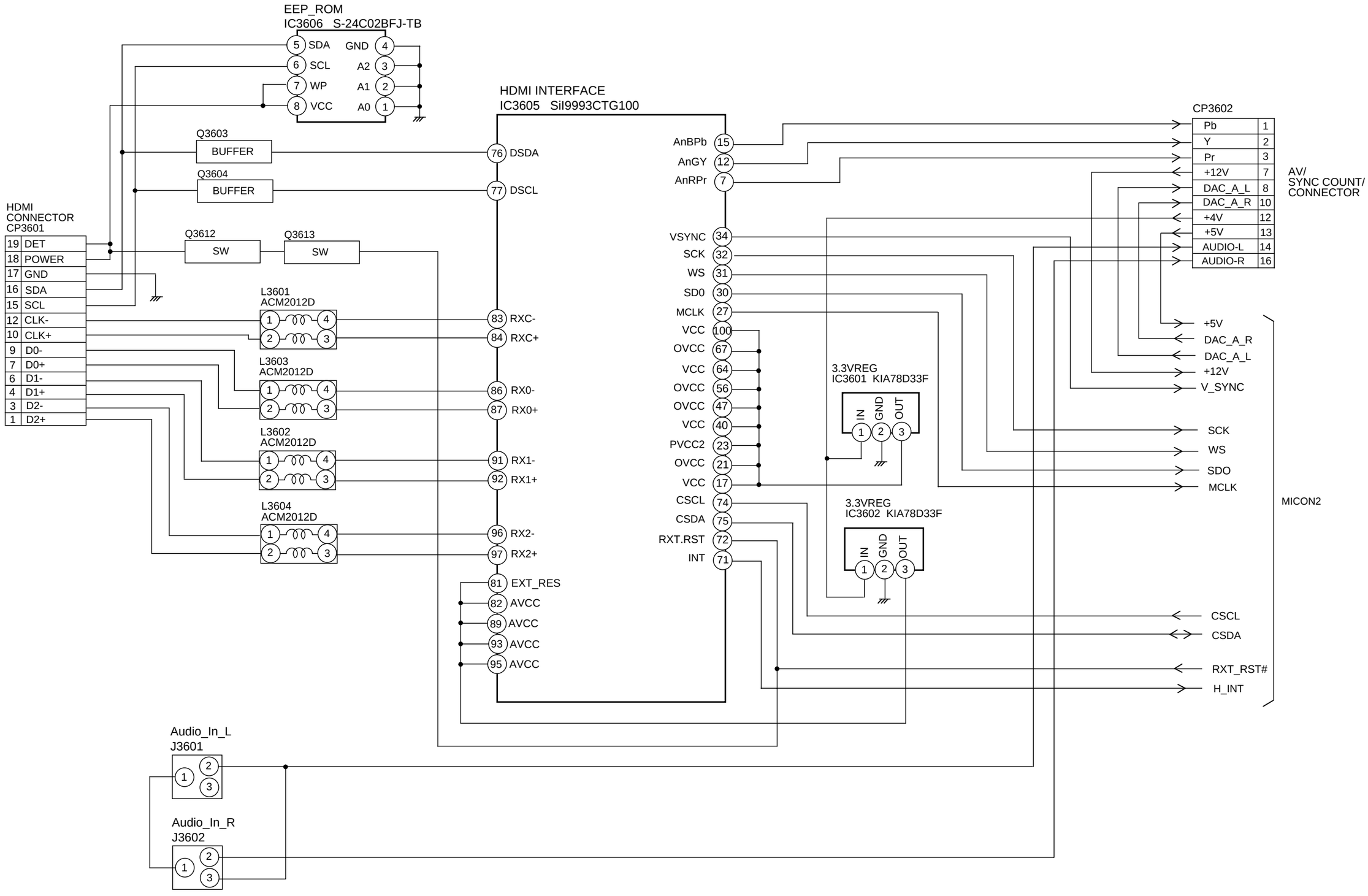
MICON1/STEREO BLOCK DIAGRAM



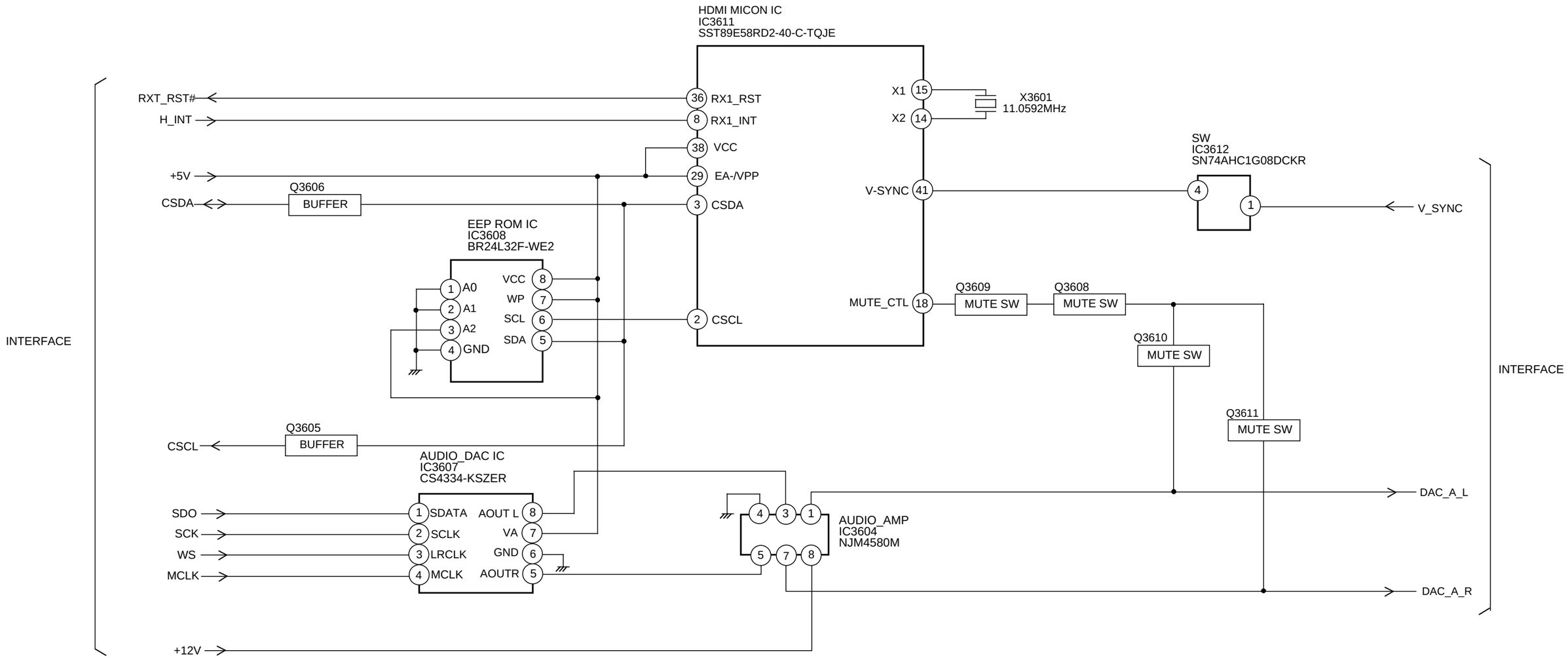
AV/SYNC COUNT/CONNECTOR BLOCK DIAGRM



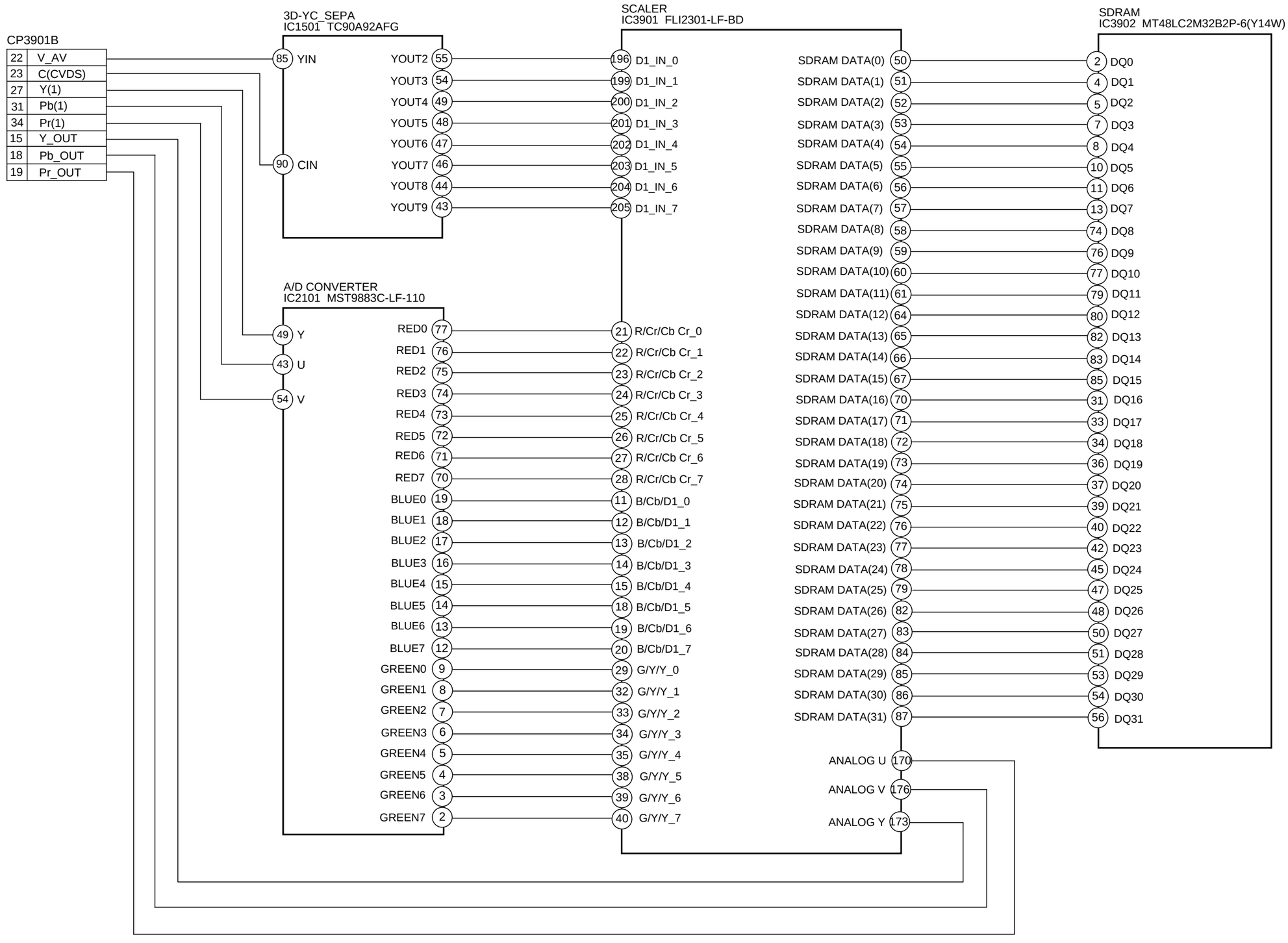
INTERFACE BLOCK DIAGRAM



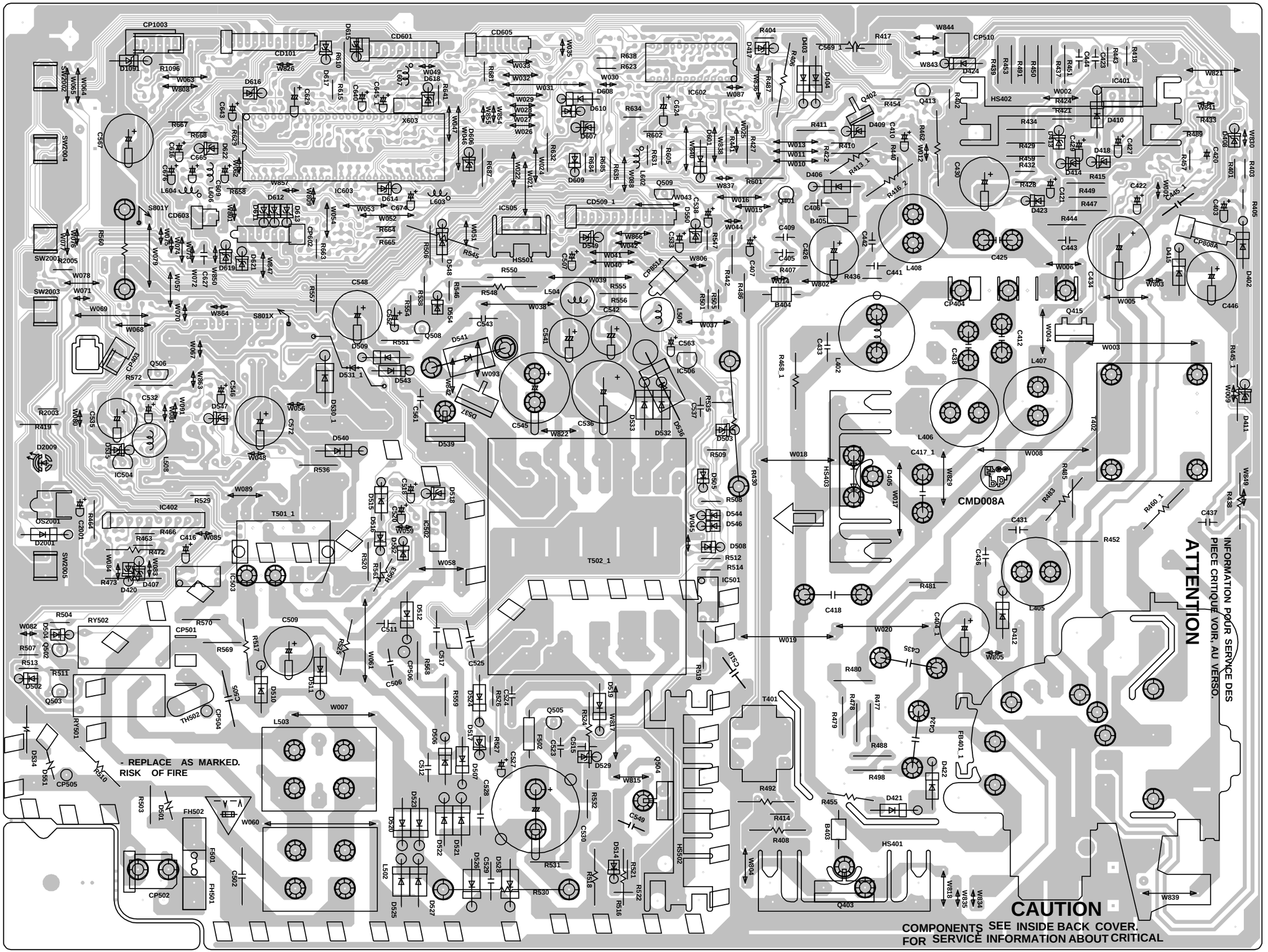
MICON2 BLOCK DIAGRAM



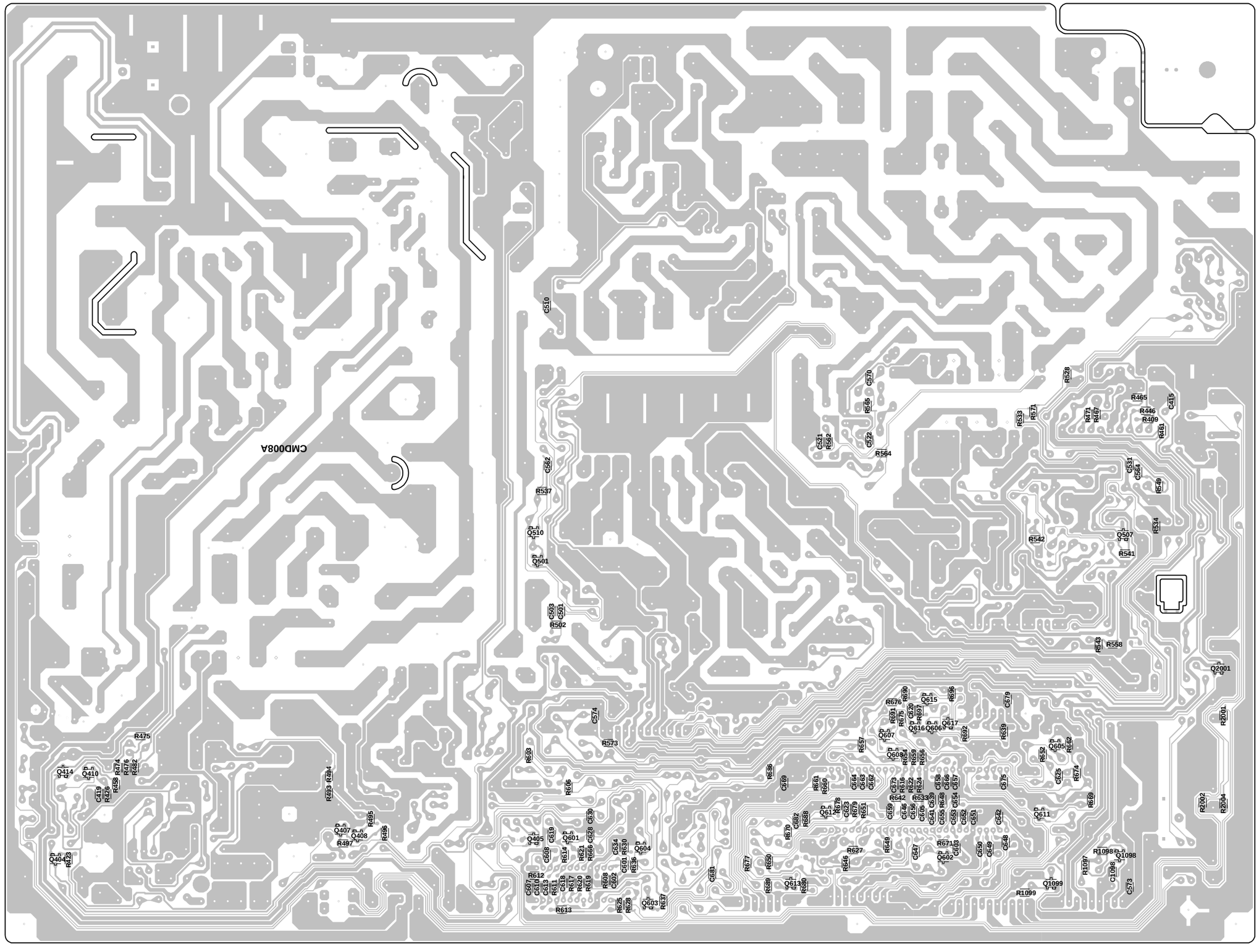
SCALER BLOCK DIAGRAM



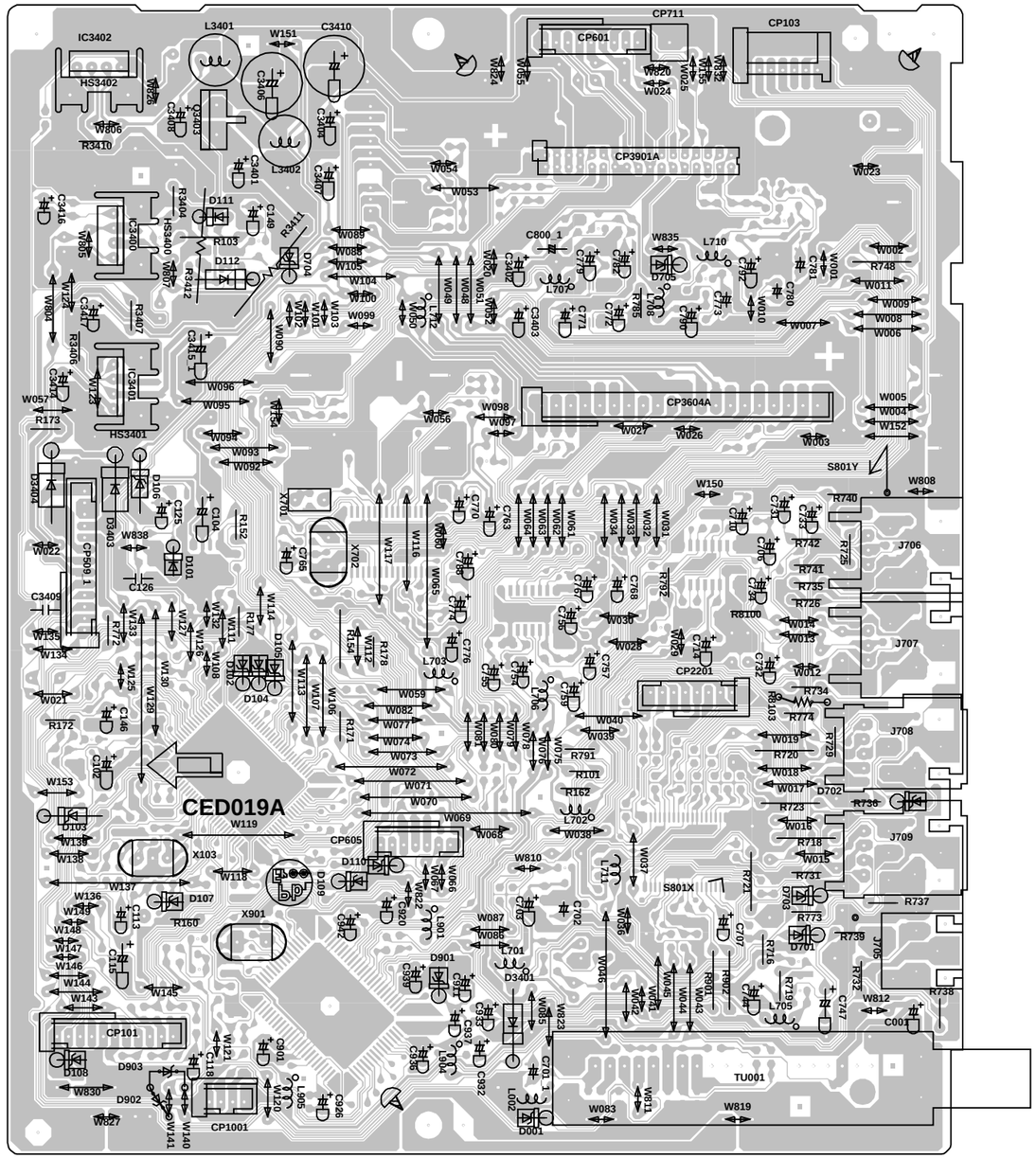
PRINTED CIRCUIT BOARDS
MAIN (INSERTED PARTS)
SOLDER SIDE



PRINTED CIRCUIT BOARDS
MAIN (CHIP MOUNTED PARTS)
SOLDER SIDE

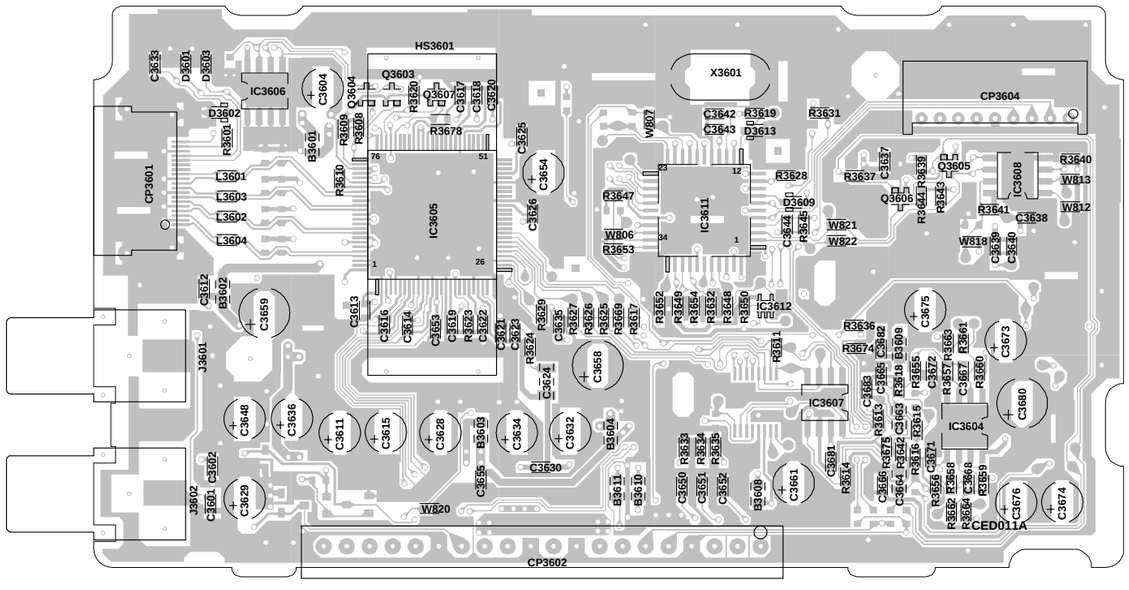


AV (INSERTED PARTS)
SOLDER SIDE

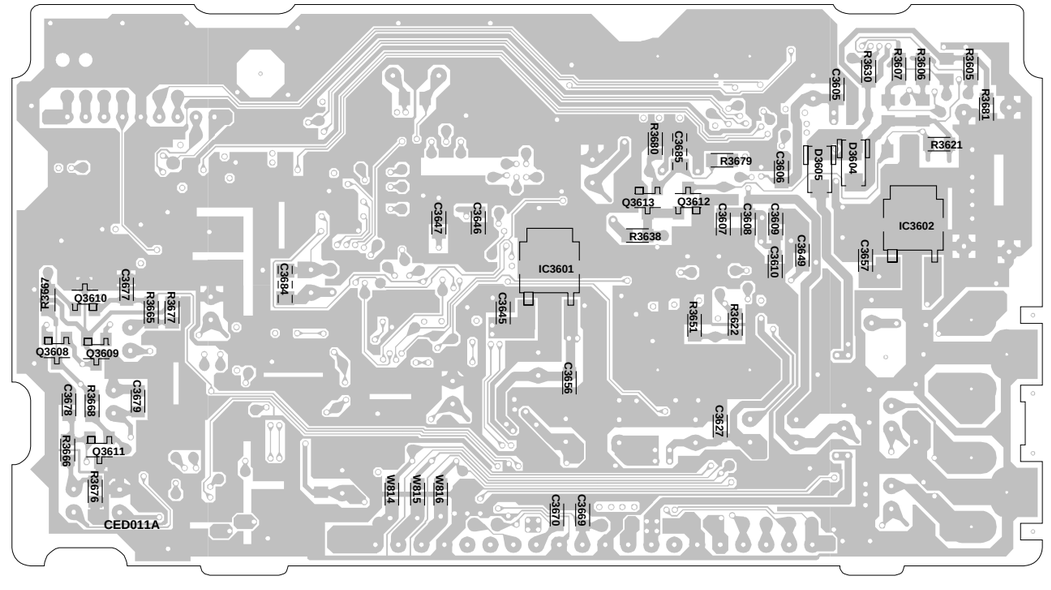


PRINTED CIRCUIT BOARDS

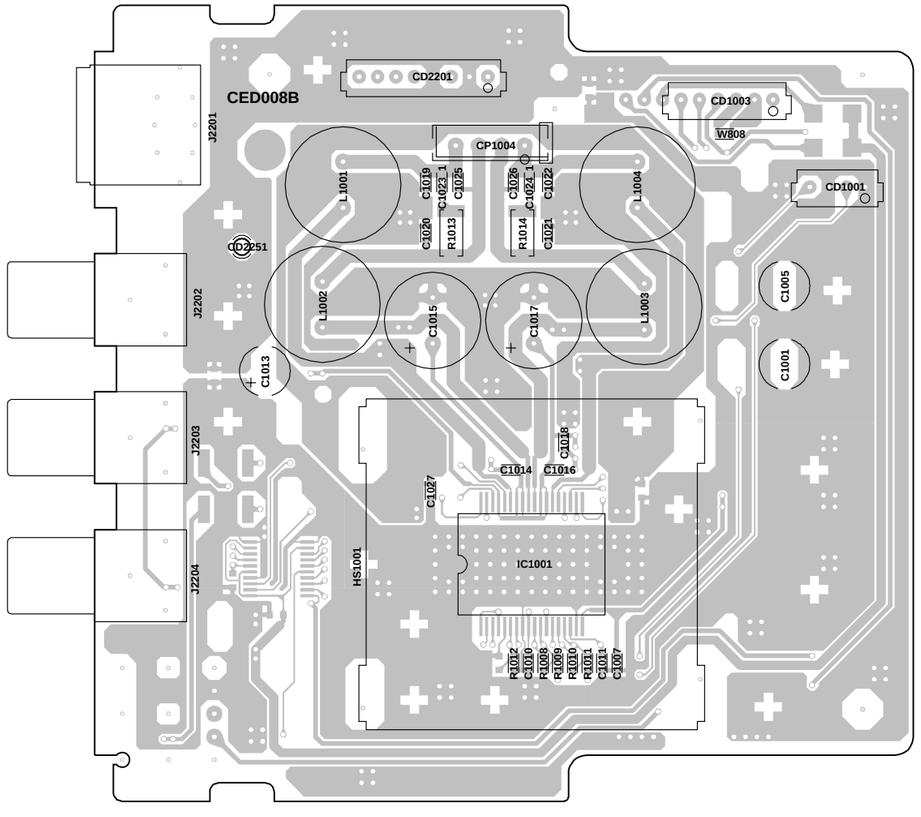
HD-MI (TOP SIDE)



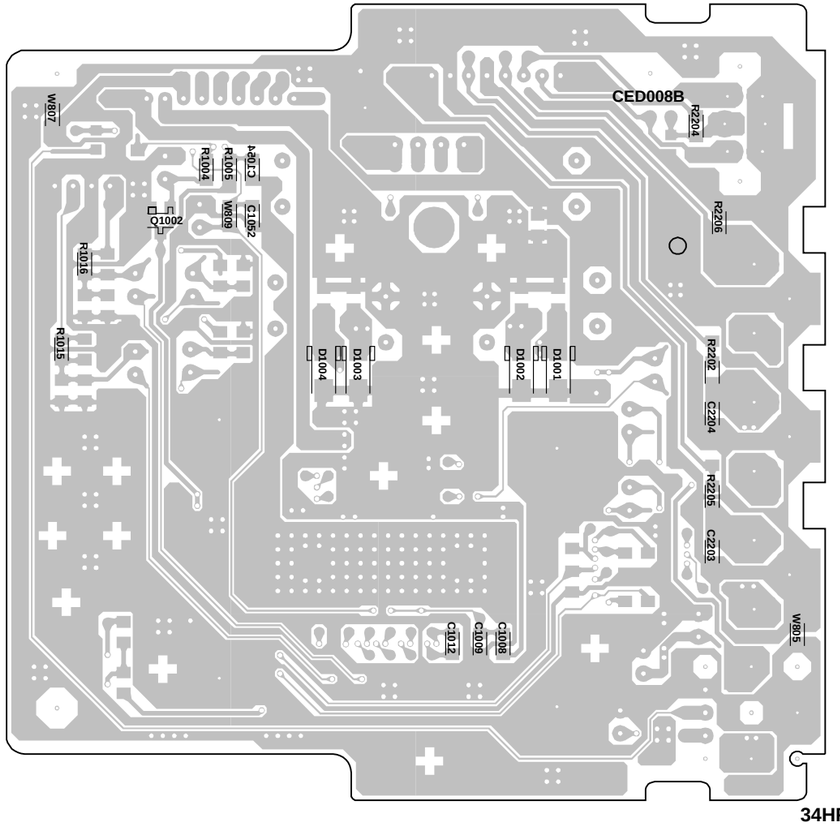
HD-MI (BOTTOM SIDE)



FRONT JACK (TOP SIDE)

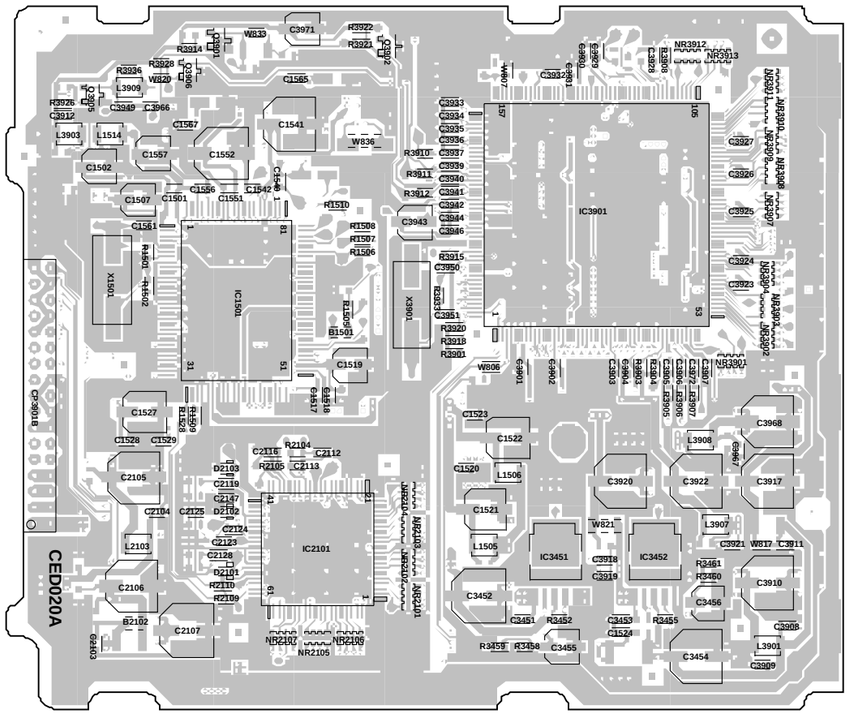


FRONT JACK (BOTTOM SIDE)

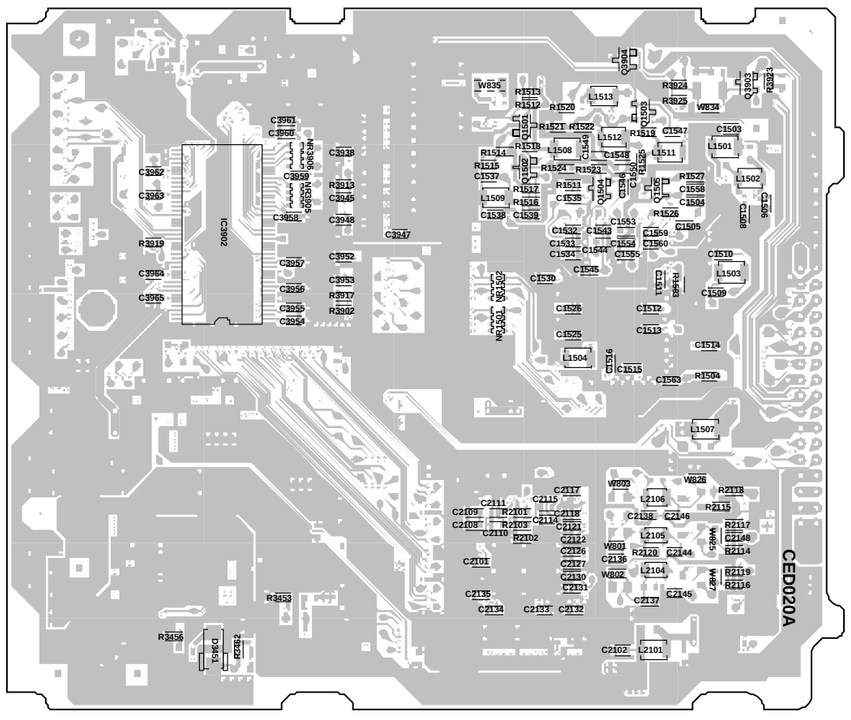


PRINTED CIRCUIT BOARDS

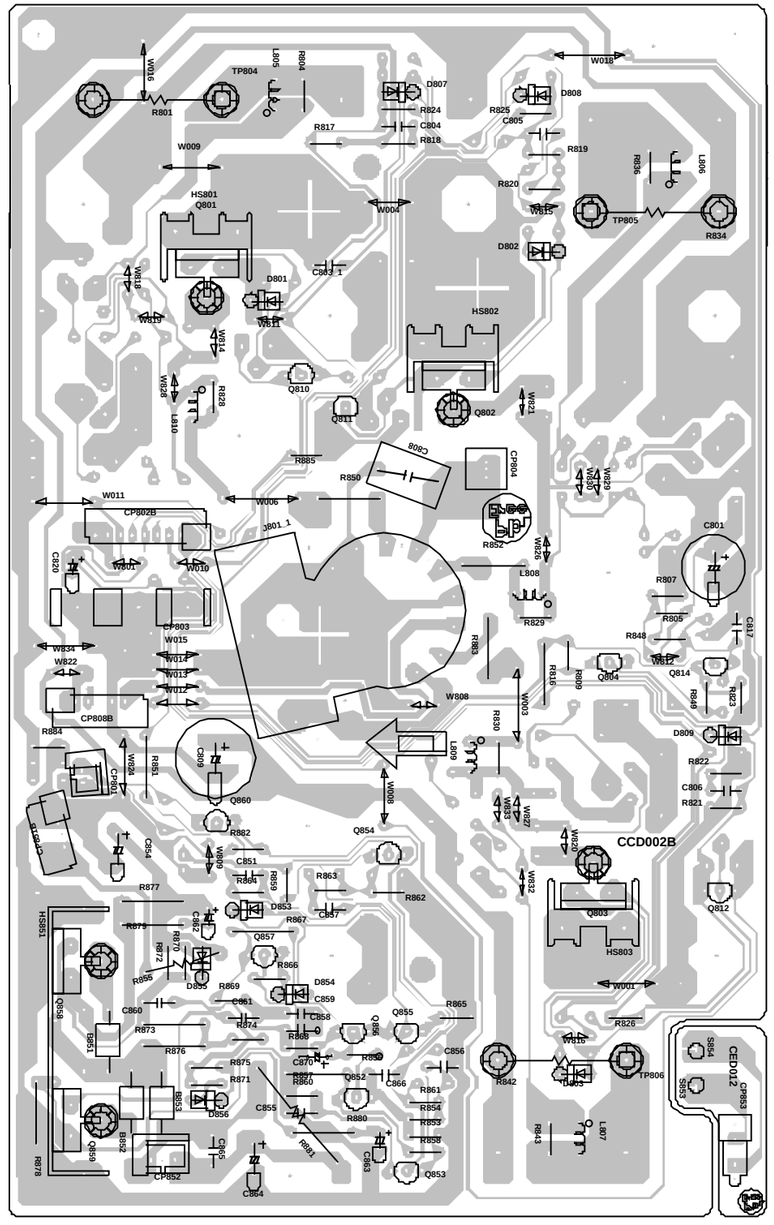
SCALER (TOP SIDE)



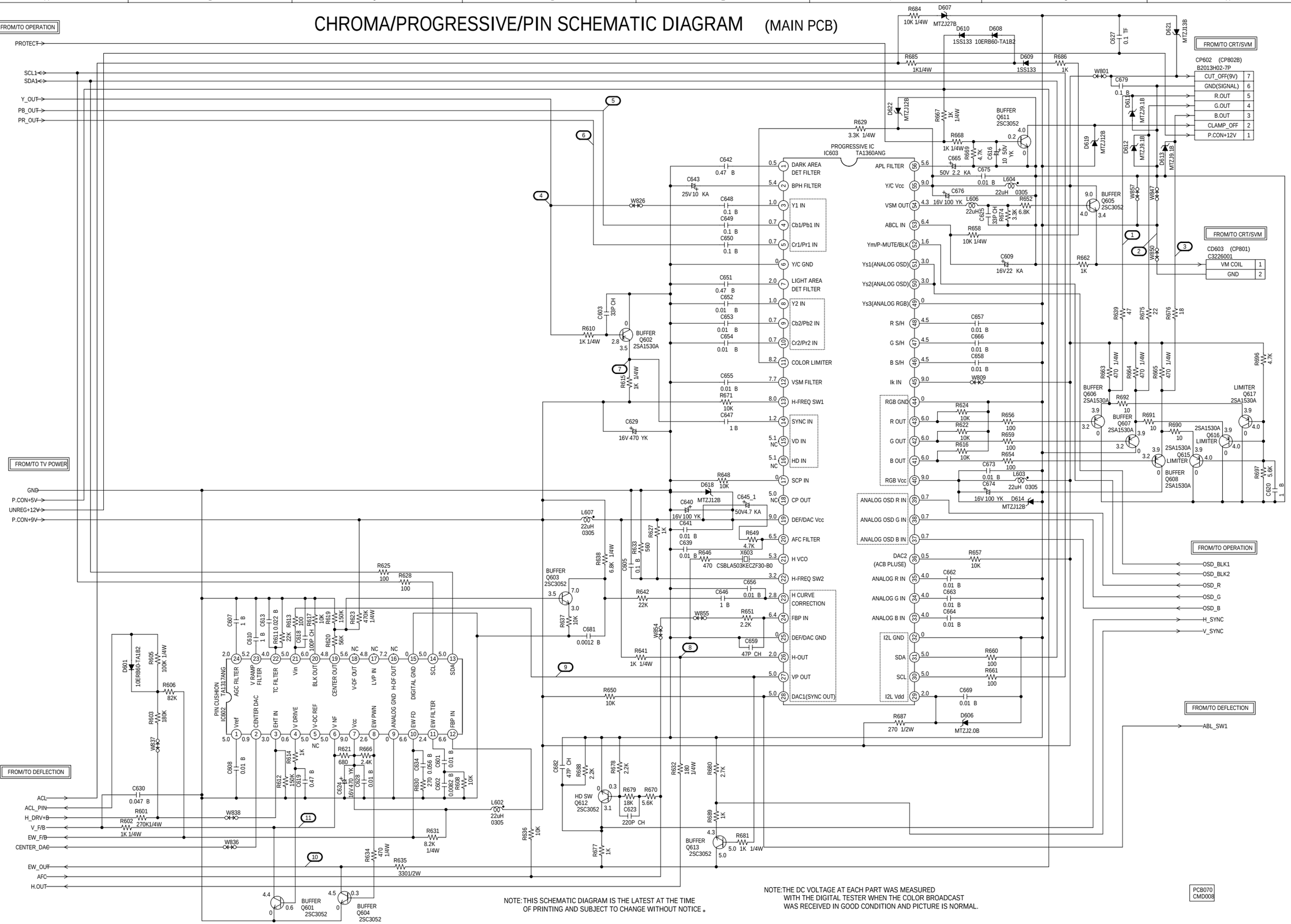
SCALER (BOTTOM SIDE)



CRT/VM COIL SOLDER SIDE



CHROMA/PROGRESSIVE/PIN SCHEMATIC DIAGRAM (MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

DEFLECTION SCHEMATIC DIAGRAM (MAIN PCB)

TO TILT COIL
CP403 A2502WV2-2P
1 TILT_DR[+]
2 TILT_DR[-]
T1 W843 NC
TILT TEST
T2 W844 NC
R464 10 1/2W
C415 0.33 B
OP AMP IC402 LA6510
VSENCE1 OUT1 -VIN1 +VIN1 VEE +VIN2 -VIN2 OUT2 VSENCE2 VCC
11.5 11.9 4.2 2.9 0 4.5 4.2 11.9 11.5 13.5
R409 2.2
R446 180K
R463 15K 1/4W
R465 3.3K
R471 2.2
C416 16V 100 YK
R472 12 1W
R473 12 1W
R461 18K
R419 1K 1/4W
D407 MTZJ15B
D420 MTZJ15B
R466 10K 1/4W
R467 120K
V.OUTPUT IC401 LA78041
THERMAL PROTECTION
AMP
PUMP UP
VCC GND
4.0 25.0 2.0 0 12.0 25.0 4.0
C427 35V/100 YK
R418 1.2K 1/4W
C423 500V 10P SL
D410 11E1-EIC
R443 1.2K 1/4W
R424 18K +-1%
R432 18K 1/4W
C429 35V 100 YK
D418 MTZJ33B
R421 18K +-1%
R428 680 1/4W
C421 47 50V YK
R429 3.3 1/2W
R434 3.3 1/2W
C430 25V 2200 MHE
D414 MTZJ33B
R459 3.3 1/2W
HS402 763WAAA061 HS33V2
R454 1K 1/4W
D413 MTZJ33B
C444 100V 0.22 MKT
R444 560 1/2W
R447 560 1/2W
R449 560 1/2W
R415 560 1/2W
C443 100V 0.12 MKT
R451 1.1 1/2W
R462 220 3W
R402 10 1/4W
AMP Q413 KTC3198
R439 2.2K 1/2W
R453 2.2K 1/2W
R437 1.5K 1/2W
R450 1.5K 1/2W
R491 1.5K 1/2W
R423 100
BUFFER Q404 2SC3052
FROM/TO DY
CP404 B06B-DVS-L (LF)
L402 ELH5L7150N C433
2KV 330P R
R468_1 1K 1W
R455 68 1/2W
D421 RGP02-16E
D422 RGP02-16E
V.PARABORA Q410 2SC3052
R457 8.2K 1/4W
R433 8.2K 1/4W
R498 220K 1/2W
R477 47K 1/2W
R478 47K 1/2W
R479 150K 1/2W
R480 150K 1/2W
R481 270K 1/2W
C424 1.5KV 0.0068 MPP
V.PARABORA Q414 2SC3052
C420 50V 10 NA
R475 56K
C422 25V 47 YK
R476 10K
V.PARABORA Q415 2SC4634
R474 10K
R458 1.2K
R489 1.2K 1/4W
R426 4.7K
C419 0.056 B
W841
C435 1.5KV 0.0068 MPP
R482 2.7K
C401 0.027 100V MMTS
R485 12K 1/2W
L405 ELC18B821LM
R483_1 22 1W
W839
T402 86290014
FB401_1 3734001F
COL E180 B+ DAF AFC HEATER GND E15 E25
R460_1 1/2W220+-10%
DAFIN ABL
CD807 CU013005
CD803 (CP803) C383037A
TO CRT
V801 W86MAG183X80
ANORD FOCUS 1 FOCUS 2 SCREEN
FROM/TO CRT/SVM
CP808A (CP808B) B2013H02-5P
180V GND HEATER
PCB070 CMD008
W803
D415 AU02A-EIC
C446 22 250V MHE
R452 270K 1/2W
C445_1 0.01 630V PP
W802
T401 ETH19K208AZ
C410 50V10 YK
R494 5.6K
D423 1SS133
R493 47K
R495 1K
Q408 SW 2SC3052
R496 1K
SW Q407 2SC3052
R497 1K
D424 1SS133
H.DRIVE Q401 2SC3328_Y(TPE6_F)
C409 330P B
C405 0.039 M
R407 330 1/2W
C407 50V 22 MHE
R408 0.22 1W
W804
FL OUT Q403 2SC5905010R
R492 101W
R414 220 1/4W
W818
HS8V HS401 763WAAA059
B403 W5RH3.5X5X1.0
C418 1.5KV 0.0065 MPP
D405 FMQ-3GULF027-102
C412 250V 0.3 PMS
C438 250V 0.033 PMS
L406 ELC18B151LK
W829
HS403 HS8V 763WAAA059
C417_1 630V 0.01 PP
R406 39 2W
D403 11E1-EIC
D404 11E1-EIC
R417 560 2W
R438 2.7K 1W
C437 500V 100P B
C406 500V 220P B
D406 RGP10J-EIC
B404 W5RH3.5X5X1.0
B405 W5RH3.5X5X1.0
R416_2 2.2 1W
R413_1 2.2 1W
L408 ELC18B103LM
L407 ELC18B151EN
C436 500V 0.001 B
D412 AU02A-EIC
W805
E/W SWITCHING Q402 2SK2920(Q)
R410 1001/4W
R411 39K1/4W
C441 100V 0.047 MMTS
C425 10K1/4W 250V 3.3 PMS
R422 3.9K 1/4W
C426 25V 22 YK
D409 MTZJ15B
C442 100V 0.082 MKT
R440 1K 1/4W
C434 35V 2200 MHE
D411 MTZJ39.1B
PROTECT TEST
W834 NC
W835 NC
R445_1 2.2 1W
R430 1.8 10W
W830
R403 18K +-1%
R405 15K +-1%
D402 AU02A-EIC
C404_1 160V 47 ED
R427 56K1/4W
SW Q405 RT1N141C
R442 5.6K 1/2W
R486 33K 1/2W
R441 5.6K 1/4W
D408 MTZJ5.6B
R401 2.2K +-1%
X-RAY
C403 100V 22 YK
R487 10K 1/2W
D417 MTZJ39B
R404 220K 1/4W
W840
FROM/TO CHROMA/PROGRESSIVE/PIN
FROM/TO OPERATION
FROM/TO TV POWER
FROM/TO CHROMA/PROGRESSIVE/PIN
V_F/B
H.OUT
H_DRV+B
CENTER_DAC
AFC
ACL_PIN
ACL
EW_OUT
EW_F/B
TILT_DRIVE
X-RAY
P.CON+5V
UNREG+12V
H_GND
GND
+B
ABL_SW1

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

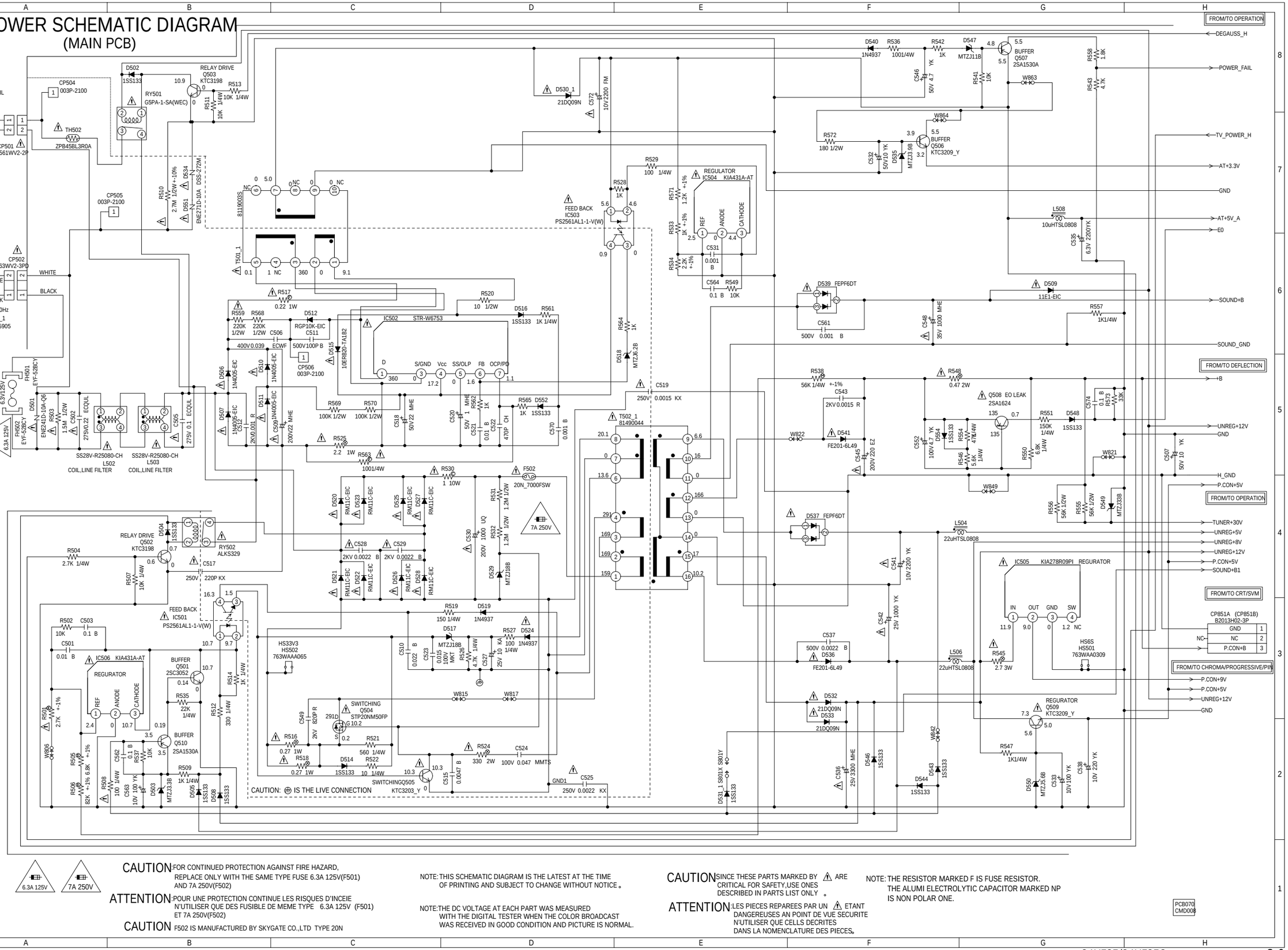
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR

TV POWER SCHEMATIC DIAGRAM
(MAIN PCB)



6.3A 125V

7A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F501) AND 7A 250V(F502)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V (F501) ET 7A 250V(F502)

CAUTION F502 IS MANUFACTURED BY SKYGATE CO.,LTD TYPE 20N

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

PCB070
CMD008

OPERATION SCHEMATIC DIAGRAM

(MAIN PCB)

L505
W5T29X7.5X19

FROM/TO REGUATOR

CD509_1 (CP509_1) CU2D2501

E0	13
GND	12
GND	11
AT+5V	10
AT+3.3V	9
UNREG+8V	8
UNREG+12V	7
UNREG+5V	6
TUNER+30V	5
POWER_FAIL	4
STANDBY_L	3
DEGAUSS_H	2
TV_POWER_H	1

FROM/TO TV POWER

SOUND+B1
TV_POWER_H
DEGAUSS_H
POWER_FAIL
TUNER+30V
UNREG+5V
UNREG+12V
UNREG+8V
AT+3.3V
P.CON+5V
SOUND+B
SOUND_GND
GND
AT+5V_A
E0

W886 0 Ω

FROM/TO DEFLECTION

X-RAY
TILT_DRIVE

FROM/TO SYNC COUNT/CONNECTOR

CD601 (CP601)
CU294002

1	Y_OUT	
2	GND	
3	Pb_OUT	
4	GND	
5	Pr_OUT	
6	GND	
7	VD_UP	NC
8	HD_UP	NC
9	HBLK	NC

D615 MTZJ9.1B
D616 MTZJ9.1B
D617 MTZJ9.1B

FROM/TO MICON1

CD605 (CP605)
CU273302

1	H_SYNC
2	V_SYNC
3	OSD_R
4	OSD_G
5	OSD_B
6	SDA1
7	SCL1

FROM/TO CHROMA/PROGRESSIVE/PIN

SCL1
SDA1
OSD_B
OSD_G
OSD_R
V_SYNC
H_SYNC
PR_OUT
PB_OUT
Y_OUT
PROTECT
OSD_BLK1
OSD_BLK2

FROM/TO MICON1

CD101 (CP101)
C32B3303

11	OSD_BLK2	
10	OSD_BLK1	
9	X-RAY	
8	H_CONTROL	NC
7	PROTECT	
6	TILT_DRIVE	
5	GND	
4	AUDIO_MUTE	
3	KEY_B	
2	KEY_A	
1	REMOCON	

CP510 003P-2100

1	GND

C569_1 100P CH

R1098 1K
R1097 1K
MUTE_SW Q1098 2SC3052
R1099 1K
MUTE_SW Q1099 2SC3052
R1096 1K 1/4W
C1098 0.001 B
W888 0 Ω

R560 0.47 7W
C567 25V 2200 YK
C573 0.001 B

FROM/TO SOUND AMP FRONT AV

CP1003 (CD1003)
A2001WV2-6P

SOUND+B	1
SOUND_GND	2
GND	3
AUDIO_MUTE	4
TV_POWER_H	5
UNREG+12V	6

D1091 MTZJ5.6B

R2001 560
R2002 2.7K
R2004 560
CH UP SW2001 EVQ21505R
VOL UP SW2002 EVQ21505R
CH DOWN SW2003 EVQ21505R
VOL DOWN SW2004 EVQ21505R
POWER SW2005 EVQ21505R

OS2001 RPM7138-WH5
B+ 5.0
GND 0
Vout 4.9

R2003 47 1/4W
C2001 25V0 KA
D2001 SB140-EIC

LED SW Q2001 DTC124EKA
POWER ON
SLR-342VCT32 D2009 RED LED
R2005 1/4W 270

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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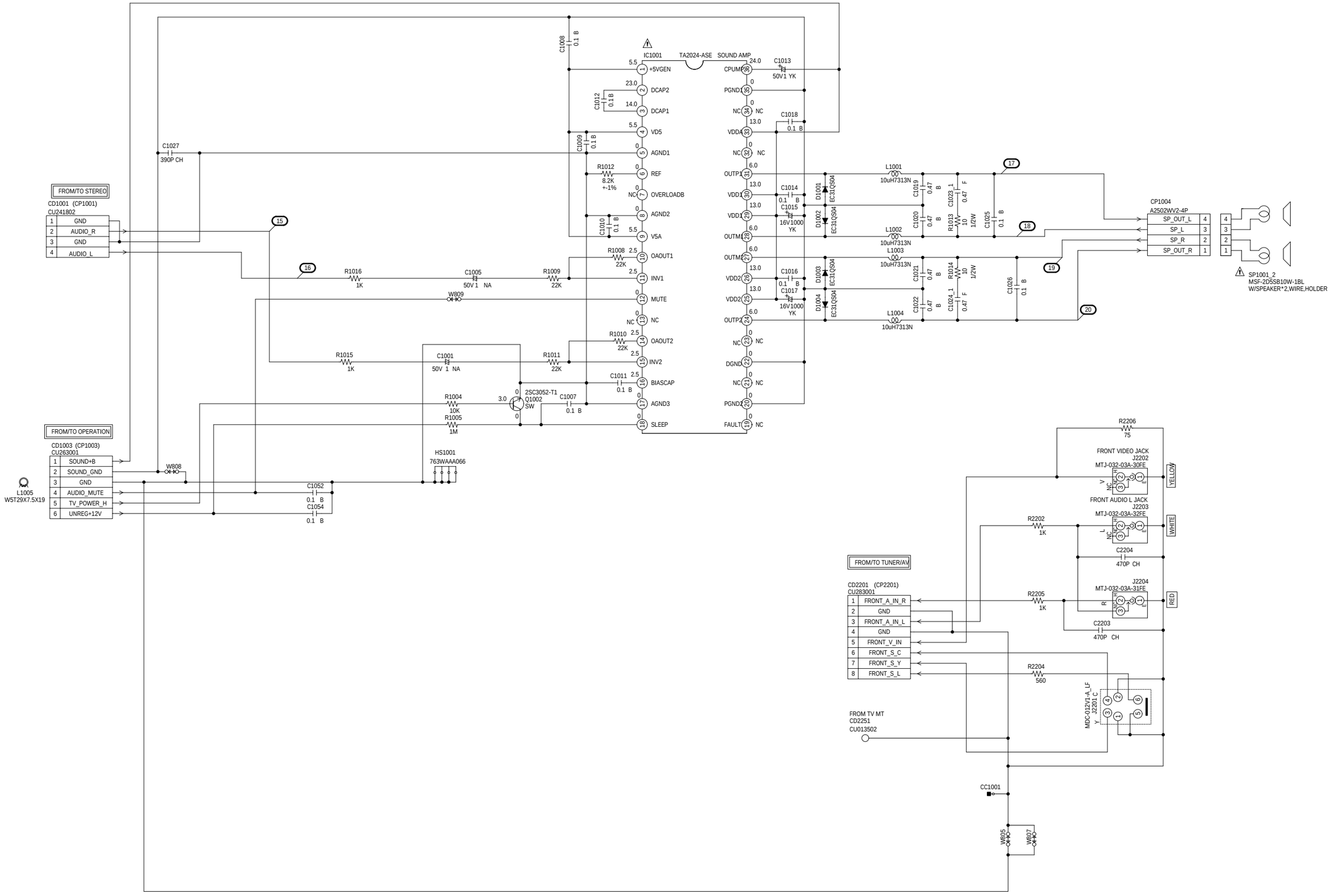
CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION:LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR

PCB070
CMD008

SOUND AMP/FRONT AV SCHEMATIC DIAGRAM (FRONT JACK PCB)



CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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PCB260
CED008

MICON1 SCHEMATIC DIAGRAM (AV PCB)

EEP ROM IC 256K
IC199 AT24C256N-10SU-2.7

MICON
IC101
OEC7118A

SYSTEM RESET
IC103 PST3229NR

SYSTEM RESET
IC102 PST3229NR

RESET SW
Q104
DTC114TKA

79.S_DET_2
80.S_DET_3
81.TV POWER
82.P.CON DET.

52.EXT MUTE
51.AUDIO MUTE
50.(FLASH ADD.15)
49.(FLASH ADD.14)
48.(FLASH RESET)

99.VCC(5V)
100.CVIN_MAIN
1.V.HOLD_MAIN
2.HLF_MAIN

32.OSD R
31.SDA2
30.HDMI Tx
29.HDMI Rx

CAUTION: DIGITAL TRANSISTOR

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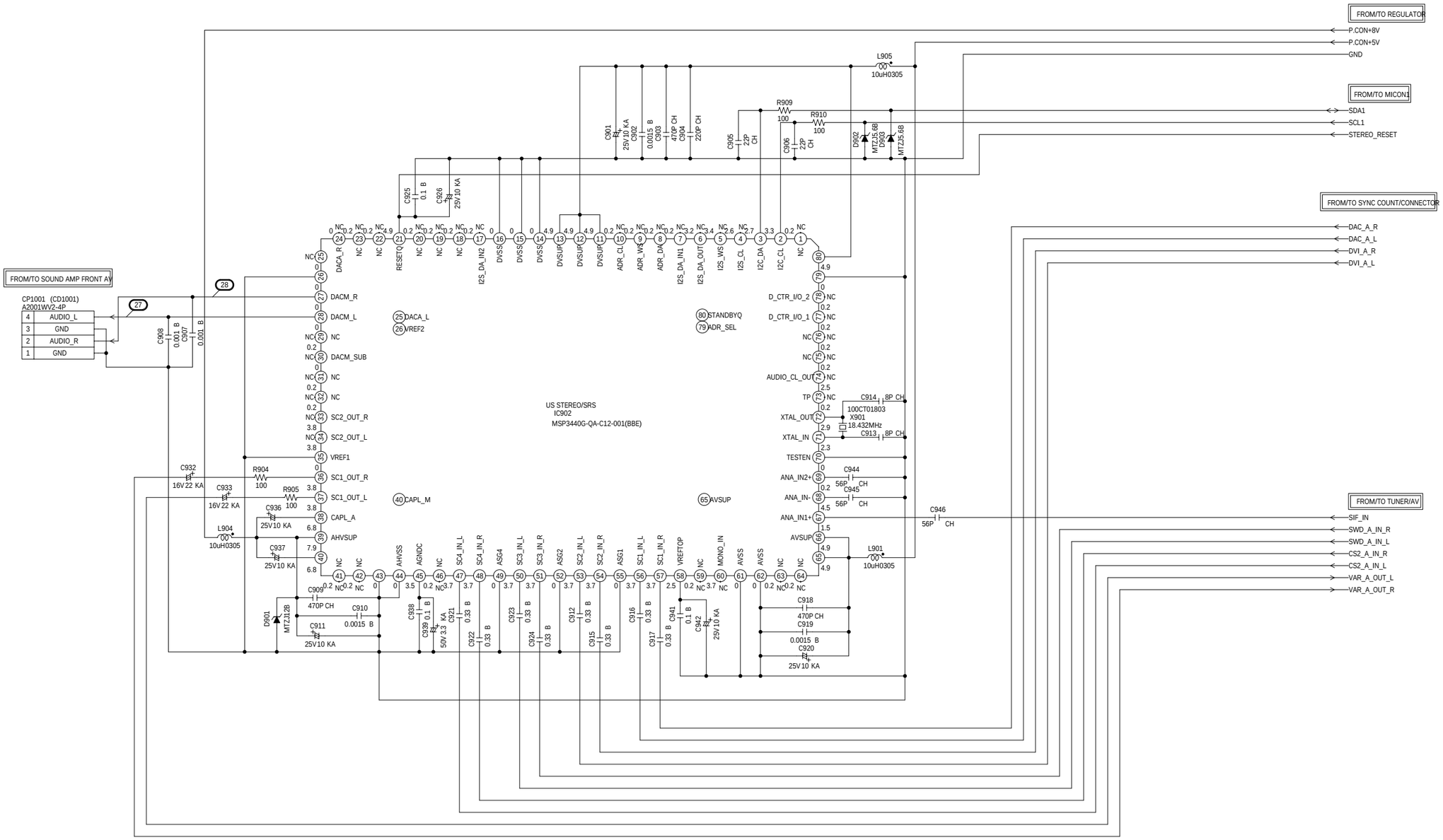
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

PCBD20
CED019

STEREO SCHEMATIC DIAGRAM

(AV PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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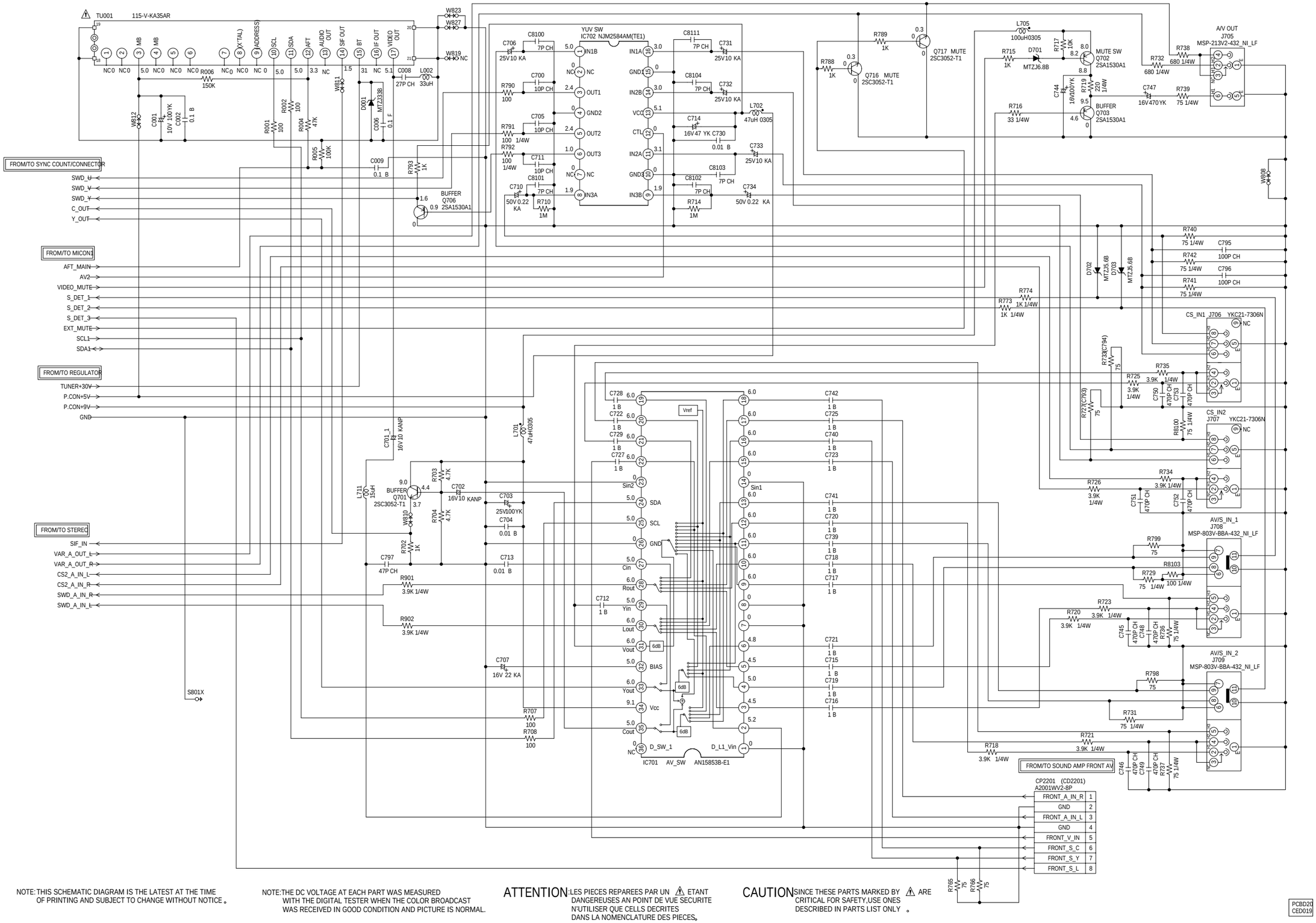
PCBD20
CED019

TUNER/AV SCHEMATIC DIAGRAM (AV PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

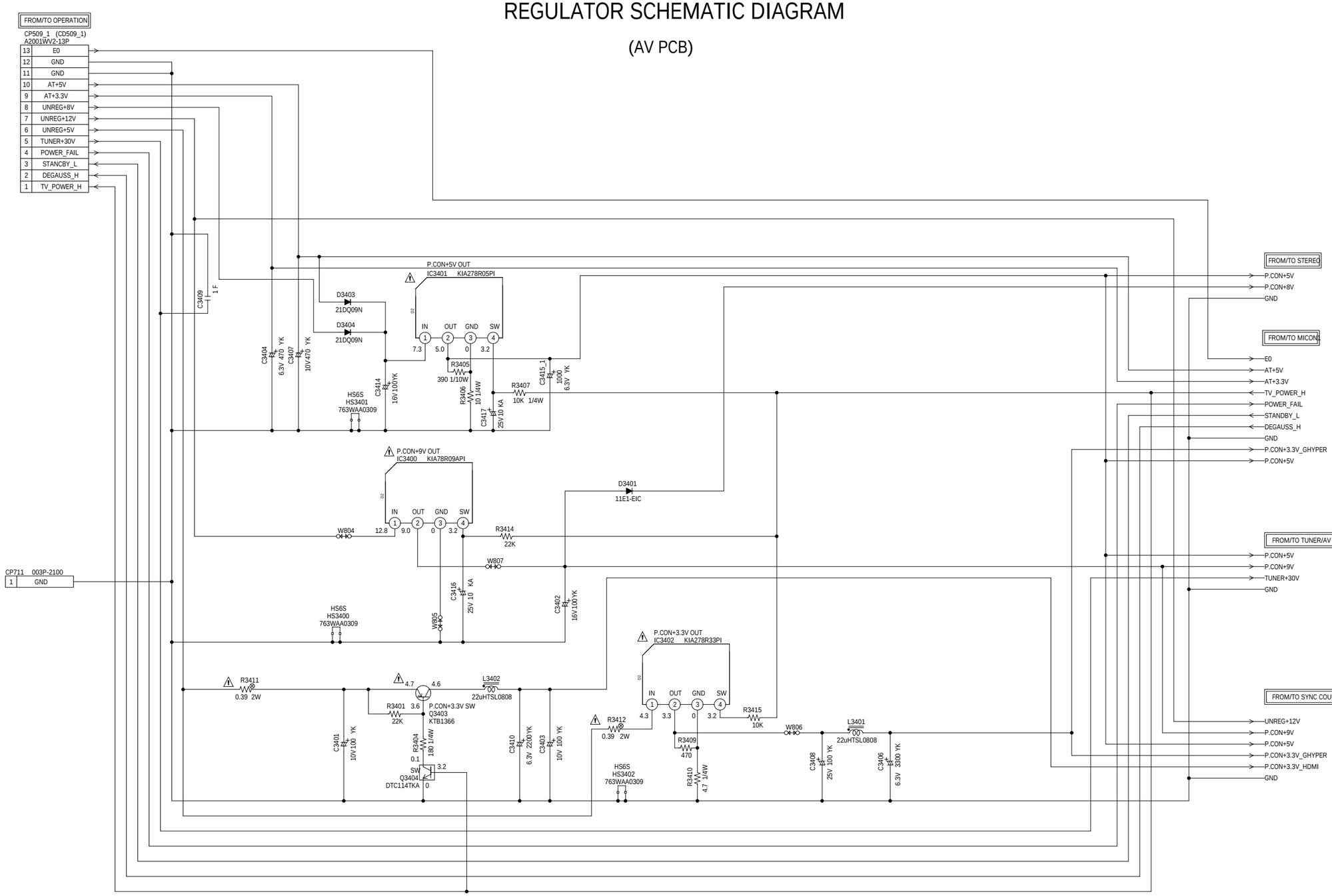
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

PCBD20
CED019

REGULATOR SCHEMATIC DIAGRAM

(AV PCB)



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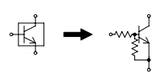
CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION : LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR



PCBD2C
CED019

SYNC COUNT/CONNECTOR SCHEMATIC DIAGRAM

(AV PCB)

FROM/TO MICON1
3D_Y/C_RESET
SCALER_RESET

FROM/TO OPERATION
CP601 (CD601)
A2001WV2-9P
1 Y_OUT
2 GND
3 Pb_OUT
4 GND
5 Pr_OUT
6 GND
7 VD_UP
8 HD_UP
9 HBLK
W820

FROM/TO INTERFACE
CP3604A (CP3602)
IMSA-9130B-20-PT1
1 Pb
2 Y
3 Pr
4 GND
5 TX NC
6 RX NC
7 +12V
8 DAC_A_L
9 GND
10 DAC_A_R
11 GND
12 +4V
13 +5V
14 AUDIO_L
15 GND
16 AUDIO_R
17 GND
18 HDMI_1/2 NC
19 V-SYNC NC
20 H-SYNC NC
R705 100
R706 100
R780 100
C737
C738 0.1 B
0.1 B

FROM/TO REGULATOR
P.CON+3.3V_HDMI
P.CON+3.3V_GHYPER
P.CON+9V
P.CON+5V
GND
UNREG+12V

FROM/TO STEREO
DVI_A_R
DVI_A_L
DAC_A_R
DAC_A_L

FROM/TO MICON1
CVIN_MAIN
AV3
AV4
SDA1
SCL1
SDA2
SCL2
C_SYNC

FROM/TO TUNER/AV
SWD_U
SWD_V
SWD_Y
Y_OUT
C_OUT

YUV SW
IC706 NJM2584AM(TE1)
C756 25V10 KA
C798 10P CH
C757 25V10 KA
C758 0.01 B
L706 47uH 0305
C759 16V47 YK
C754 25V10 KA
C755 25V10 KA
R745 1M
C767 25V10 KA
R754 1M
C768 50V0.22 KA

IC707 Y_SW NJM2533V
C771 50V10 YK
C772 25V10 KA
C778 0.01 B
C779 16V47YK
C782 16V 22 KA
L707 47uH0305
R775 15K
R776 22K
R779 470
BUFFER Q710 2SC3052-T1
S801Y
D704 MTZJ6.8B
D705 MTZJ11B
L708 47uH 0305
C736 0.1 B
C8106 0.1 B

R758 6.8K
C773 22 10V KANP
AMP Q704 2SC3052-T1
R759 15K
R763 10
C777 33PCH
R765 470 1/4W
C789 0.01 B
C790 25V100YK
C800_1 16V47 KANP
29
32
33
31
30
W835

L712 100uH0305
C761 0.01 B
C783 0.01 B
C760 25V 100 YK
R755 470
X701 CSBLA503KEC230-B0
C769 0.01 B
C770 50V 1 KA
R756 6.8K
R750 100
R749 100
BUFFER Q705 2SC3052-T1
R764 10K
R757 1K
R760 1K
C774 50V 0.1 KA
C785 0.1 B
R781 100

L710 47uH 0305
R769 10K
C781 16V10 KANP
AMP Q709 2SC3052-T1
C791 0.01 B
C792 25V 100YK
R778 10
R770 12K
R786 470
R767 10K
C780 16V10 KANP
AMP Q708 2SC3052-T1
R777 10
R768 12K
R787 470
W824 NC
W832
W826

L703 47uH 0305
R748 4.7K 1/4W
R751 4.7K
R752 33K
C765 50V 0.22 KA
C764
C766 12P CH
X702 0.0022 B
3.579545MHz 100CT3R536
C775 0.01 B
C776 0.01 B
C786 10V100YK
C787 0.1 B
C788 50V 3.3 KA
R784 10K
R772 1K 1/4W
C799 330P B
R783 100
R782 100

FROM/TO IN/OUT/REGULATOR
CP3901A (CP3901B)
79107-7016

P.CON+5V	1	P.CON+5V	2
GND	3	GND	4
P.CON+3.3V	5	P.CON+3.3V	6
GND	7	GND	8
3D_Y/C-RESET	9	SCL	10
SOFT RESET	11	SDA	12
GND	13	GND	14
Y_OUT	15	GND	16
GND	17	Pb_OUT	18
Pr_OUT	19	GND	20
VSYNC	21	V_AV	22
C(CVBS)	23	HSYNC	24
GND	25	HD_UP	26
Y(1)	27	GND	28
GND	29	VD_UP	30
Pb(1)	31	GND	32
GND	33	Pr(1)	34

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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PCBD20
CED019

CRT/SVM SCHEMATIC DIAGRAM (CRT PCB)

CRT BLOCK

FROM/TO CHROMA/PROGRESSIVE/PIN

CP802B (CP602) 52147-0710

7	CUT_OFF(9V)
6	GND(SIGNAL)
5	R.OUT
4	G.OUT
3	B.OUT
2	CLAMP_OFF
1	P.CON+12V

W801, R816 47 1/4W, C820 16V 100 YK, C809 250V 33 YK, C808 2KV 0.001 B, C803 500V 22P SL

R801 3.3K 7W, L805 100uH, R804 5.6K 1/4W, TP804, W818, W819

GREEN AMP Q801 2SC4075D/E — 123.5 / 7.8 / 7.3 — W814, W828, W811, D801 1SS133

37 — R828 3.3K 1/4W, R850 6801/2W, L810 15uH 0305

GREEN AMP Q810 KTC3198 — 7.3 / 3.0 — 35

D807 1SS133 — 2.4

HS6S HS801 763WAA0309 — R818 C804 680P B, R817 330 1/4W

R824 47 1/4W, R834 3.3K 7W, L806 100uH, R836 2.7K 1/4W, TP805

RED AMP Q802 2SC4075D/E — 123.9 / 7.8 / 7.3 — W815, D802 1SS133 (W007), W829, W830, W821, W826

RED AMP Q811 KTC3198 — 7.3 / 3.0 / 2.4 — 34 — R885 100 1/4W

R825 47 1/4W, D808 1SS133

HS6S HS802 763WAA0309 — R820 C805 680P B, R819 330 1/4W

R842 3.3K 7W, TP806, L807 100uH, R843 5.6K 1/4W

BLUE AMP Q803 2SC4075D/E — 119.7 / 7.8 / 7.3 — W816, W820, W832, W833, D803 1SS133, W827

39

36 — BLUE AMP Q812 KTC3198 — 7.3 / 3.0 / 2.4 — D809 1SS133

R826 47 1/4W, C806 680P B, R822 27 1/4W, R821 330 1/4W

HS6S HS803 763WAA0309

GND

R809 680 1/4W, R805 470 1/4W, W812, BUFFER Q814 KTC3198 — 9.0 / 2.7 / 2.1

C801 16V 1000 YK, C817 100P CH, R807 220 1/4W, R848 3.3K 1/4W, R823 330 1/4W

R849 100 1/4W, BUFFER Q804 KTA1266 — 2.7 / 2.1 / 0

R829 3.3K 1/4W, L808 15uH 0305, R852 680 1/2W

J801_1 ISDW03S-F — 582.0 / 117.0 / 121.0 / 119.0 / 6.2 / 0

R830 3.3K 1/4W, L809 15uH 0305, R883 6801/2W

R884 1K1/4W, W822, W834, W824, W809

FROM/TO DEFLECTION — CP808B (CP808A) 52147-0510: 5 HEATER, 4 GND, 3 NC, 2 NC, 1 180V

CP803 (CD803) A2361WV2-3P: 3 GND, 2 GND, 1 GND

FOCUS 2, FOCUS 1

CP804 005P-2100: 1 SCREEN

FROM/TO CHROMA/PROGRESSIVE/PIN

CP801 (CD603) A2001WV2-2P: 2 GND, 1 VM COIL

SVM BLOCK

PCB110 CCD002

FROM/TO TV POWER

CP851B (CP851A) 52147-0310

GND	1
NC	2
P.CON+B	3

R855 150 1/2W, C854 160V 10 YK

R851 2.2 1/2W, C870 16V 47 KA

C851 18P CH, R864 39K 1/4W — 6.0 / 11.8

SWITCHING Q855 KTC3198 — 2.5

SWTCHING Q856 KTC3198 — 11.8 / 2.5 / 1.8

R868 33 1/4W, C860 500V 0.0047 B

SWITCHING Q858 2SA2140 — 110.0 / 108.0 / 54.5

B853 W5RH3.5X5X1.0, C865 500V 22P SL, R881 270 2W

FROM/TO VM COIL — CP852 (CP853) A2001WV2-3P: VM1 1, NC 2, VM2 3

R872 1.2K 1/4W, D855 1SS133, R870 680 1/4W, R877 47 1/2W, C862 16V 47 YK, R879 2.2 1/2W

R867 10 1/2W, C858 330P B, D853 1SS133, D854 1SS133

R873 68K 1/4W, B851 W5RH3.5X5X1.0, R876 1K 1/4W, B852 W5RH3.5X5X1.0

R874 68K 1/4W, C861 0.0047 500V B, R869 33 1/4W

SWTCHING Q857 KTA1266 — 1.8 / 2.0 / 0

SWITCHING Q859 2SC5993 — 54.5 / 2.0 / 1.0

R871 680 1/4W, C859 330P B, R875 1.2K 1/4W, D856 1SS133, R878 47 1/2W, R880 2.2 1/2W, C863 16V 47 YK, C864 160V 10 YK

HS51 HS851 763WSA0029

R853 27K 1/4W, C856 0.01 B, R857 470 1/2W, R854 27K 1/4W, R856 100 1/4W, R859 1.8K 1/4W, R858 100 1/4W, C855 39P CH, R860 150 1/4W, R861 33K 1/4W, R862 1K 1/4W, R882 2.2K 1/4W, C866 0.0082 M, R863 100 1/4W, C857 0.001 B, R865 56K 1/4W, R866 220 1/4W, C852 0.0047 500V B

AMP Q860 KTC3198 — 12.8 / 3.4 / 2.7

AMP Q852 KTC3198 — 10.3 / 2.0 / 0.1

Q853 AMP 2SC752(G)TM_Y — 5.7 / 0

BUFFER Q854 KTC3198 — 11.8 / 5.7 / 1.9

(VM COIL PCB)

PCBD80 CED012

FROM/TO CRT/SVM — CP853 (CP852) B2013H02-3P: 1, NC 2, 3

CD852_1 CU232001: 1 1, 2 2, 3 3

FROM/TO VM COIL

S853

S854

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

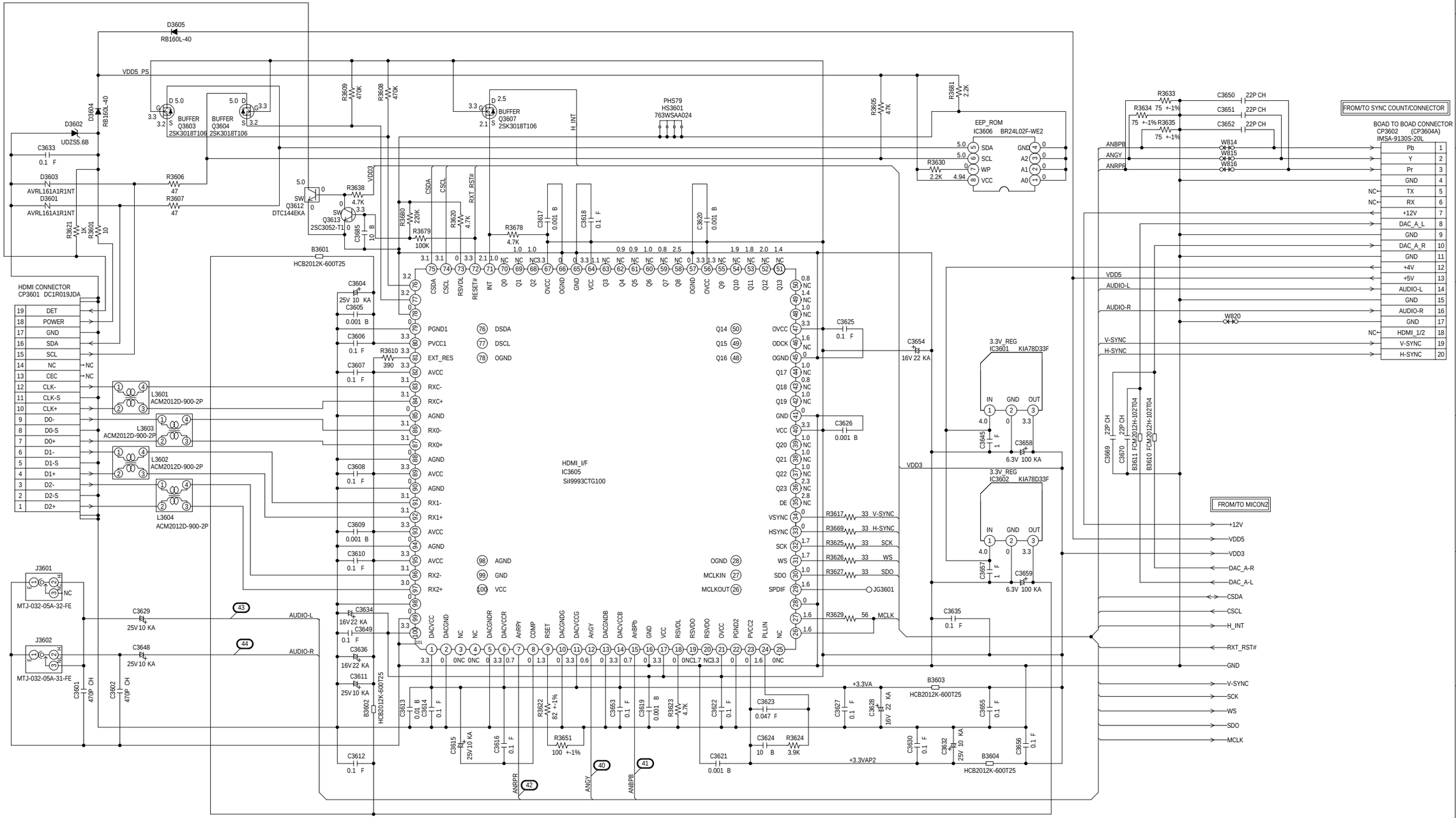
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

INTERFACE SCHEMATIC DIAGRAM

(HD-MI PCB)



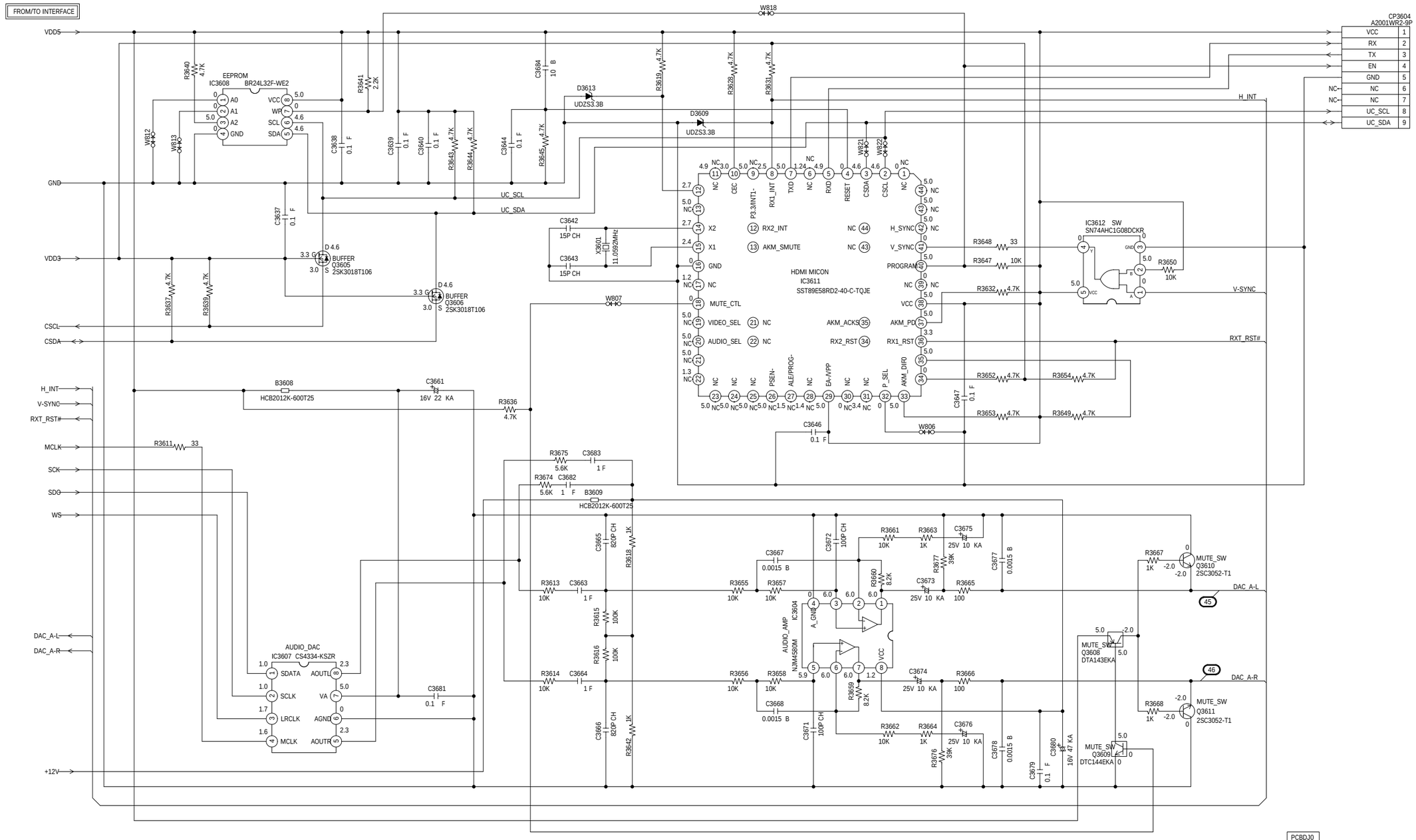
CAUTION: DIGITAL TRANSISTOR

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

MICON2 SCHEMATIC DIAGRAM

(HD-MI PCB)



CAUTION: DIGITAL TRANSISTOR

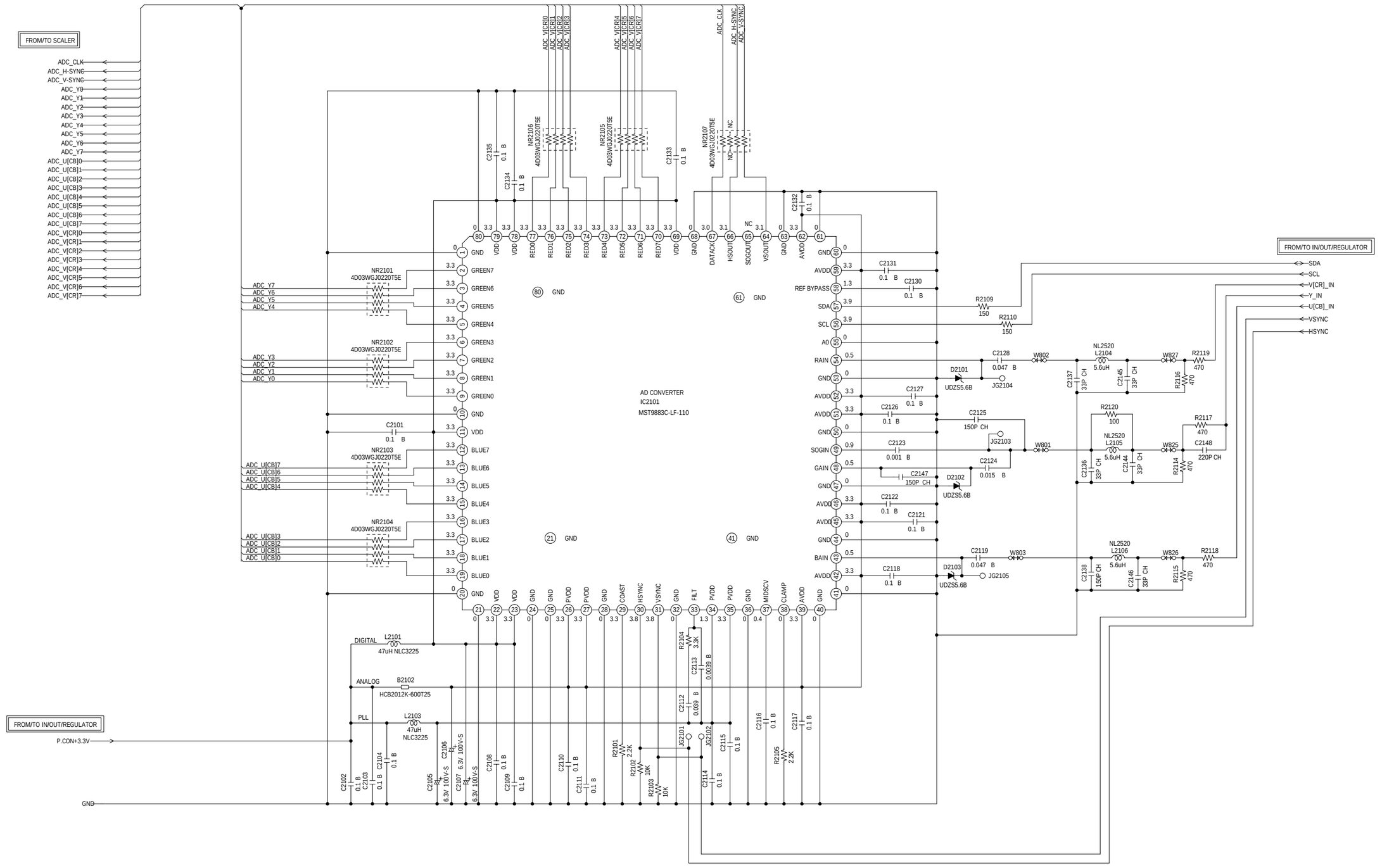
CAUTION: DIGITAL TRANSISTOR

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ANALOG/DIGITAL CONVERTER SCHEMATIC DIAGRAM

(SCALER PCB)



SCALER SCHEMATIC DIAGRAM

(SCALER PCB)

FROM/TO ANALOG/DIGITAL CONVERTER

ADC_Y0
ADC_Y1
ADC_Y2
ADC_Y3
ADC_Y4
ADC_Y5
ADC_Y6
ADC_Y7
ADC_U[CB]0
ADC_U[CB]1
ADC_U[CB]2
ADC_U[CB]3
ADC_U[CB]4
ADC_U[CB]5
ADC_U[CB]6
ADC_U[CB]7
ADC_V[CR]0
ADC_V[CR]1
ADC_V[CR]2
ADC_V[CR]3
ADC_V[CR]4
ADC_V[CR]5
ADC_V[CR]6
ADC_V[CR]7
ADC_CLK
ADC_H-SYNC
ADC_V-SYNC

FROM/TO DIGITAL COMB

3D_Y/C_656OUT-0
3D_Y/C_656OUT-1
3D_Y/C_656OUT-2
3D_Y/C_656OUT-3
3D_Y/C_656OUT-4
3D_Y/C_656OUT-5
3D_Y/C_656OUT-6
3D_Y/C_656OUT-7
3D_Y/C_HD-OUT
3D_Y/C_VD-OUT
3D_Y/C_656-CLK
3D_Y/C_ODD/EVE

FROM/TO IN/OUT/REGULATOR

P.CON+1.8V
P.CON+3.3V
GND
DIGITAL
ANALOG
L3901 47uH
L3907 47uH
W817
W821

FROM/TO SDRAM

DATA0
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
DATA8
DATA9
DATA10
DATA11
DATA12
DATA13
DATA14
DATA15
DATA16
DATA17
DATA18
DATA19
DATA20
DATA21
DATA22
DATA23
DATA24
DATA25
DATA26
DATA27
DATA28
DATA29
DATA30
DATA31
ADDR0
ADDR1
ADDR2
ADDR3
ADDR4
ADDR5
ADDR6
ADDR7
ADDR8
ADDR9
ADDR10
BA0
BA1
WEN
CASN
RASN
CSN
DQM
SDRAM_CLK

FROM/TO IN/OUT/REGULATOR

ANALOG_V_OUT
ANALOG_Y_OUT
ANALOG_U_OUT
SOFT_RESET
SCL
SDA

IC3901
FLI2301-LF-BD
SCALER

SDRAM DATA(0)
SDRAM DATA(1)
SDRAM DATA(2)
SDRAM DATA(3)
SDRAM DATA(4)
SDRAM DATA(5)
SDRAM DATA(6)
SDRAM DATA(7)

SDRAM ADDR(2)
SDRAM ADDR(1)
SDRAM ADDR(0)
SDRAM WEN
SDRAM RASN
SDRAM CASN
SDRAM BA1

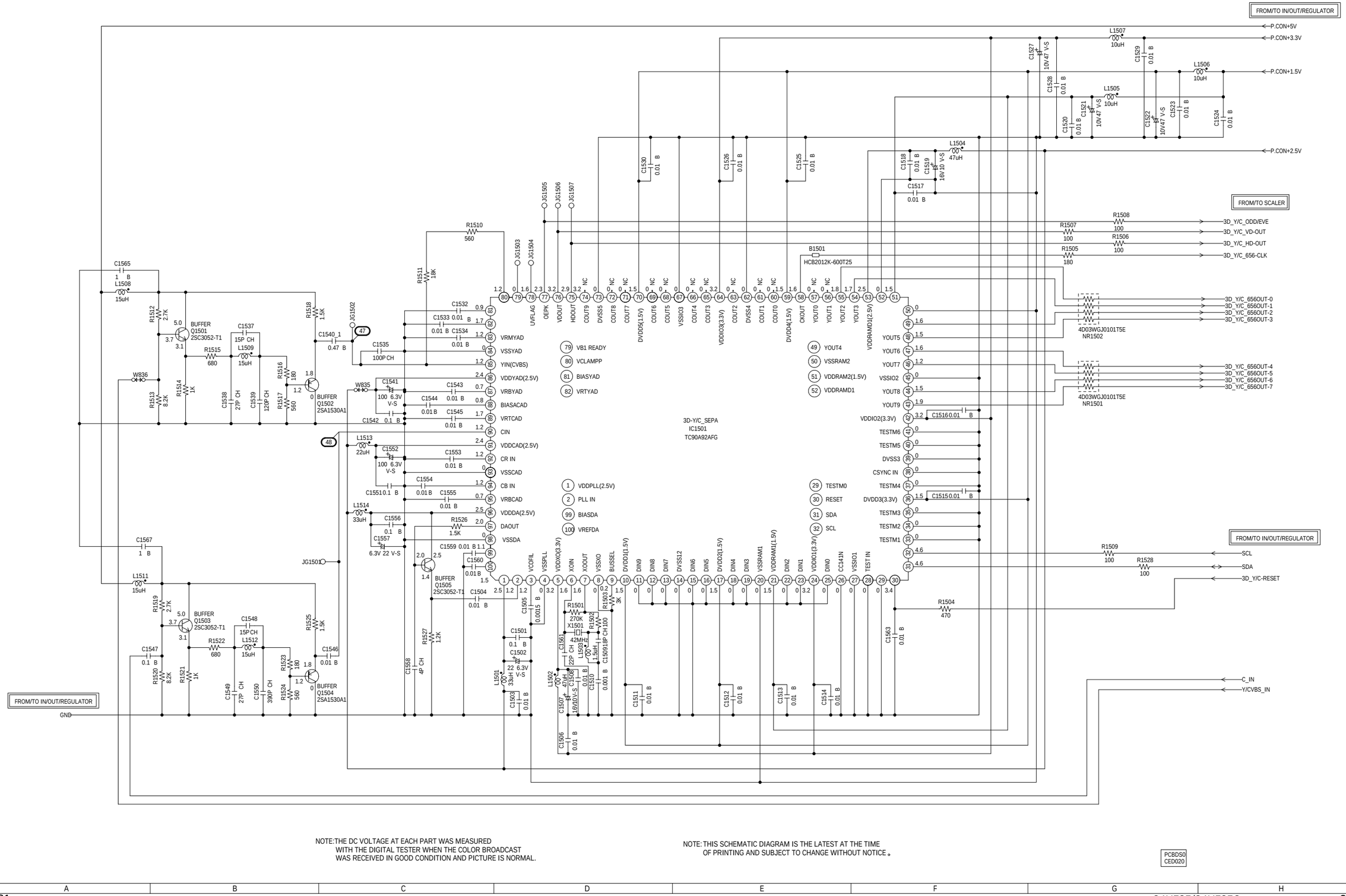
PCBDS0
CED020

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

DIGITAL COMB SCHEMATIC DIAGRAM

(SCALER PCB)



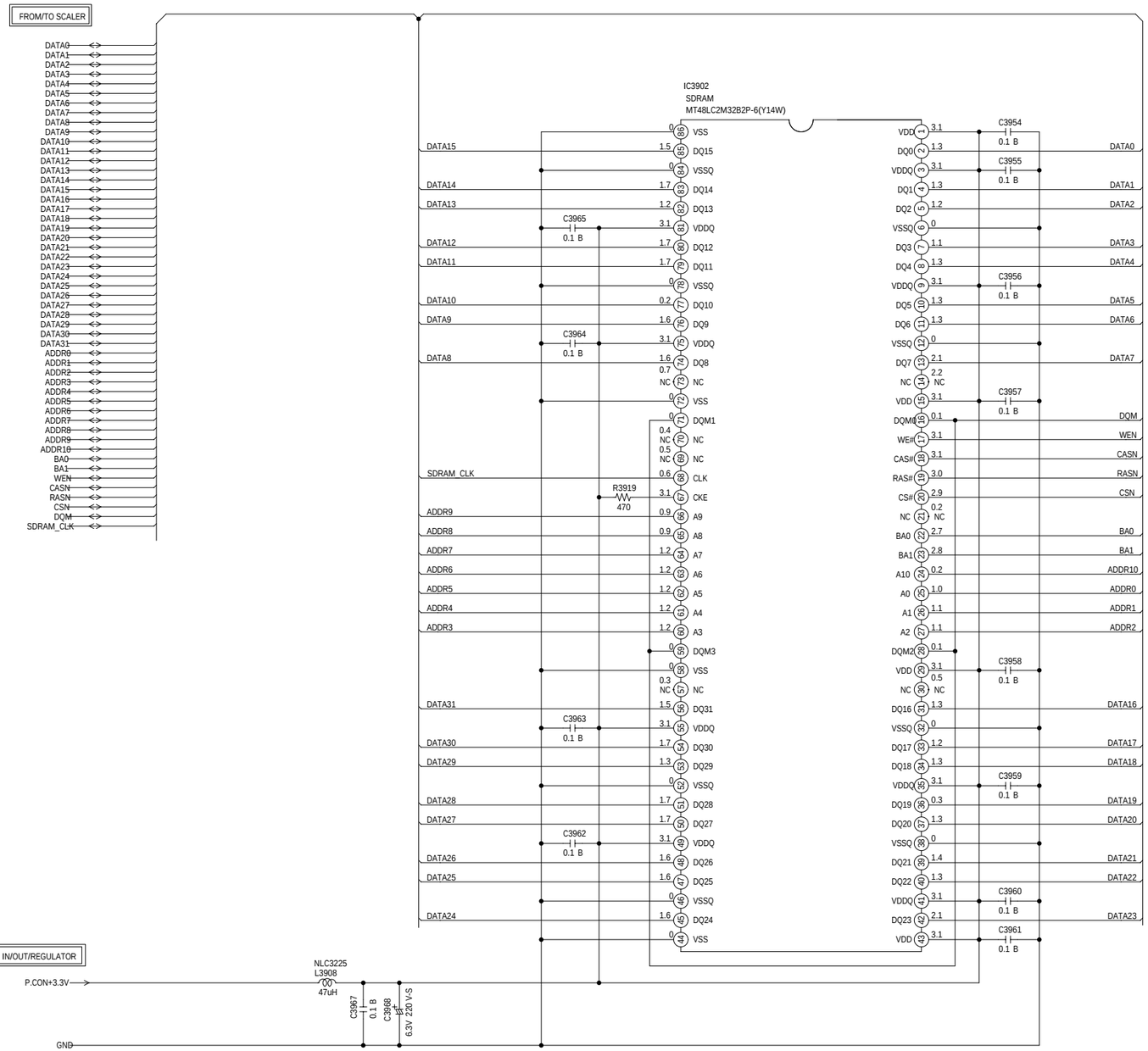
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

PCBDS0 CED020

SDRAM SCHEMATIC DIAGRAM

(SCALER PCB)

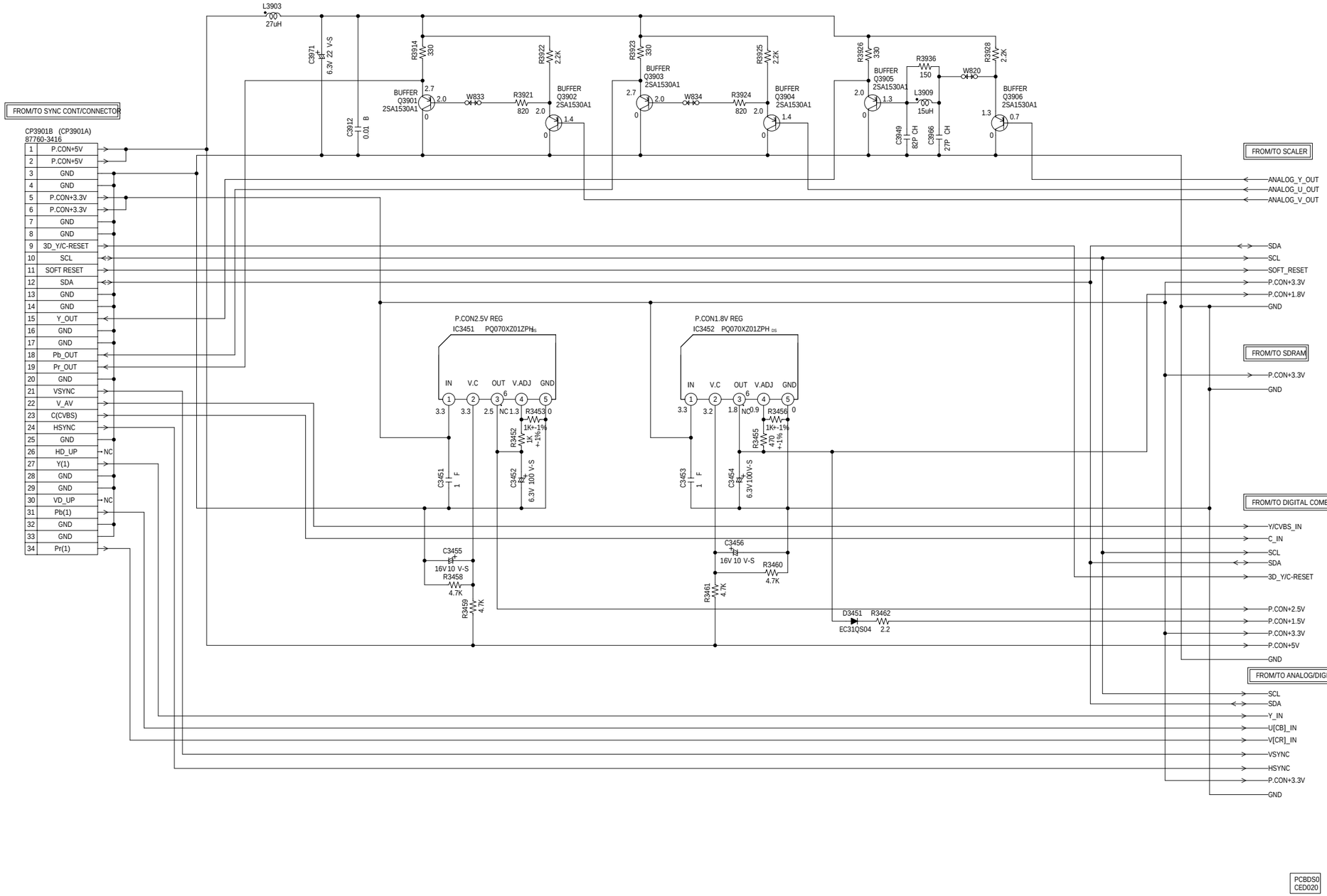

FROM/TO SCALER
DATA0 DATA1 DATA2 DATA3 DATA4 DATA5 DATA6 DATA7 DATA8 DATA9 DATA10 DATA11 DATA12 DATA13 DATA14 DATA15 DATA16 DATA17 DATA18 DATA19 DATA20 DATA21 DATA22 DATA23 DATA24 DATA25 DATA26 DATA27 DATA28 DATA29 DATA30 DATA31
ADDR0 ADDR1 ADDR2 ADDR3 ADDR4 ADDR5 ADDR6 ADDR7 ADDR8 ADDR9 ADDR10
BA0 BA1 WEN CASN RASN CSN DQM SDRAM_CLK
IC3902
SDRAM
MT48LC2M32B2P-6(Y14W)
C3954 C3955 C3956 C3957 C3958 C3959 C3960 C3961 C3962 C3963 C3964 C3965 0.1 B
R3919 470
FROM/TO IN/OUT/REGULATOR
P.CON+3.3V
GND
NLC3225
L3908
47uH
C3967 0.1 B
C3968 6.3V 220 V-S
PCBDS0
CED020

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

IN/OUT/REGULATOR SCHEMATIC DIAGRAM

(SCALER PCB)



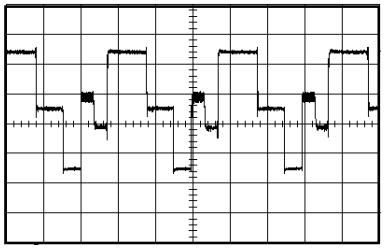
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

WAVEFORMS

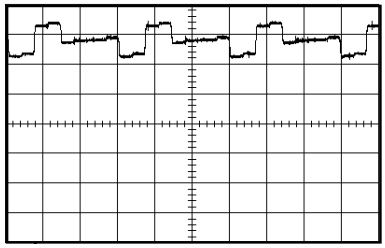
CHROMA/PROGRESSIVE/ PIN CUSHION

10µs
1.0V



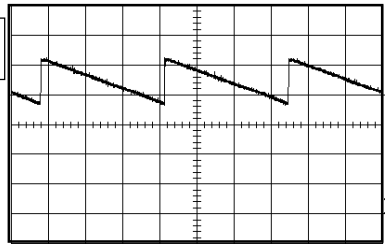
①

10µs
0.5V



⑥

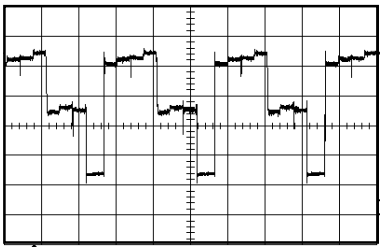
5ms
1.0V



⑪

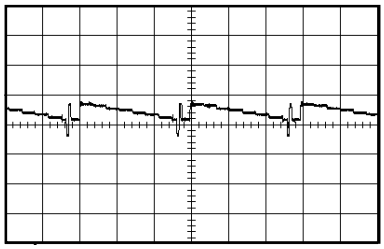
DEFLECTION

10µs
1.0V



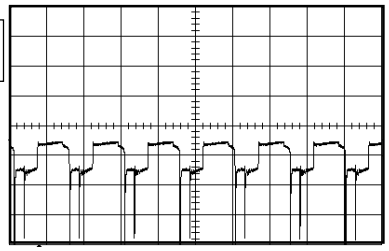
②

10µs
1.0V



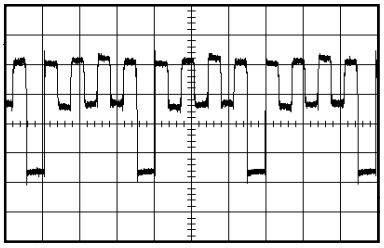
⑦

20µs
2.0V



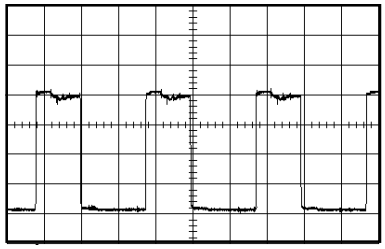
⑫

10µs
1.0V



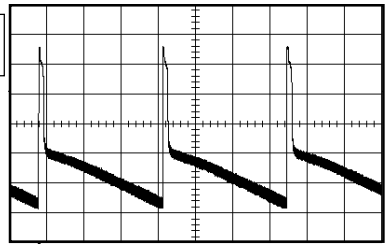
③

10µs
0.5V



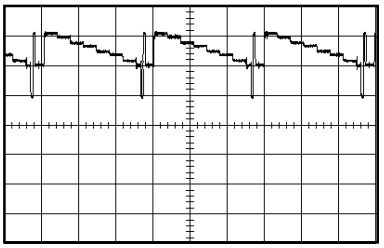
⑧

5ms
1.0V



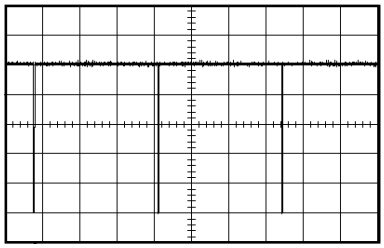
⑬

10µs
0.5V



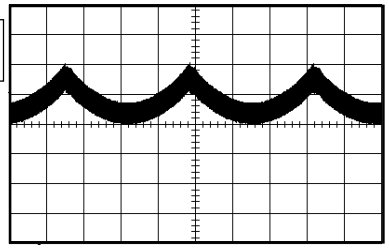
④

5ms
1.0V



⑨

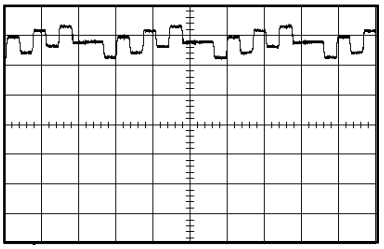
5ms
5.0V



⑭

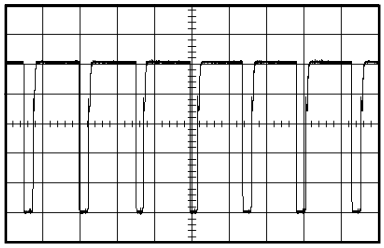
SOUND AMP/ FRONT AV

10µs
0.5V



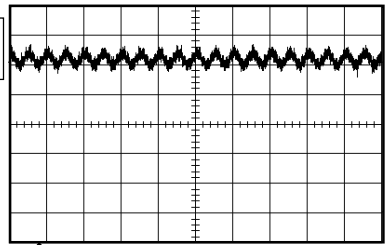
⑤

20µs
1.0V



⑩

5ms
200m



⑮

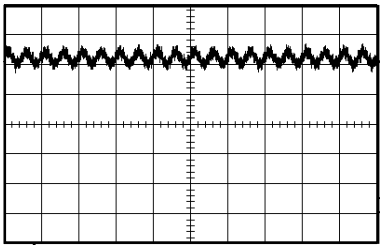
NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

MICON1

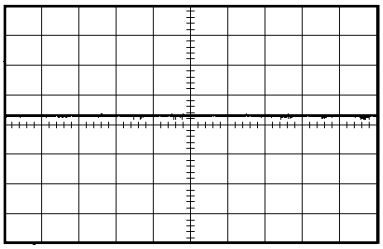
5ms
200m

16



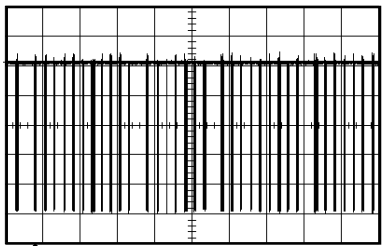
5ms
1.0V

21



20ms
1.0V

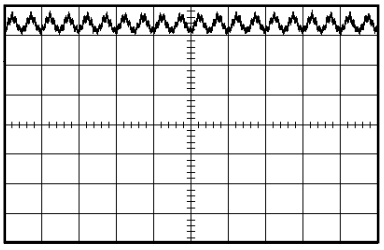
26



STEREO

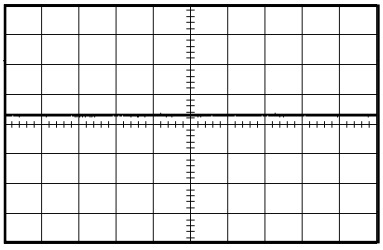
5ms
1.0V

17



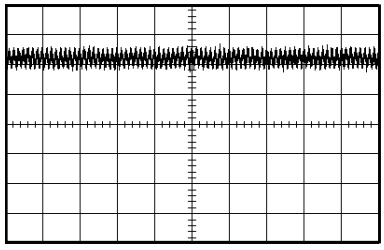
0.5ms
1.0V

22



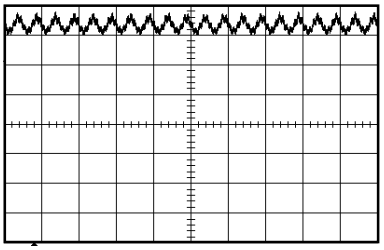
20ms
200mV

27



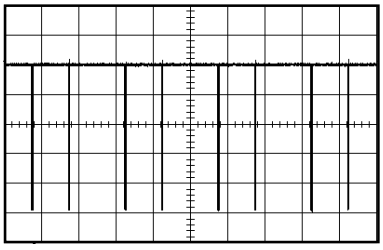
5ms
1.0V

18



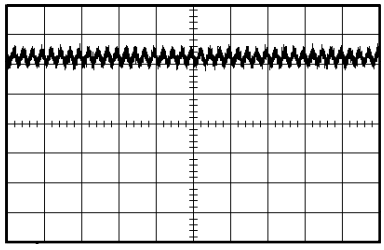
20ms
1.0V

23



10ms
200mV

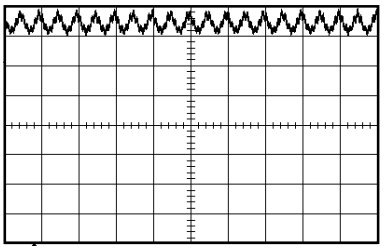
28



SYNC COUNT/ CONNECTOR

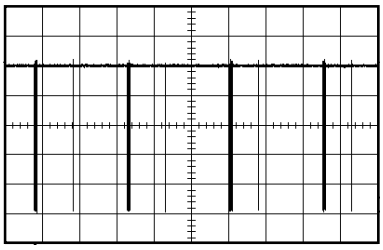
5ms
1.0V

19



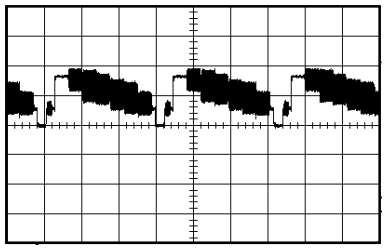
20ms
1.0V

24



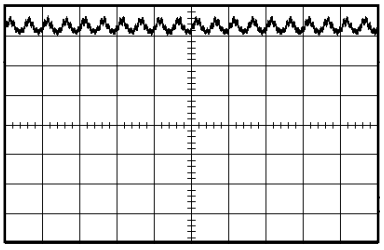
20µs
1.0V

29



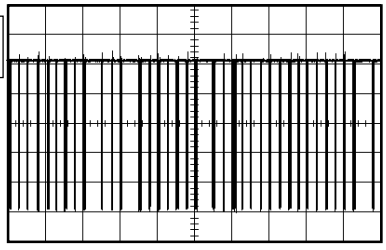
5ms
1.0V

20



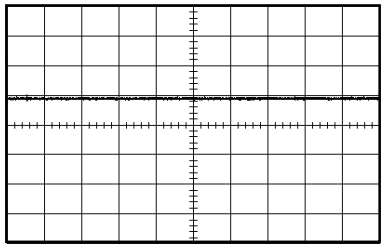
20ms
1.0V

25



20µs
1.0V

30

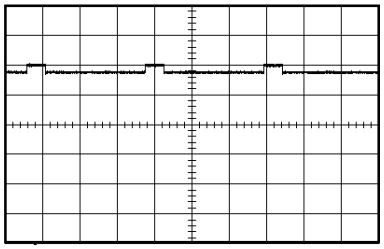


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

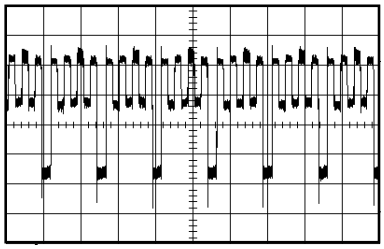
20µs
1.0V

(31)



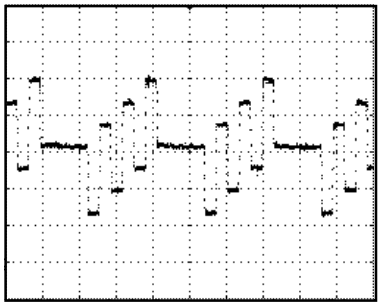
20µs
1.0V

(36)



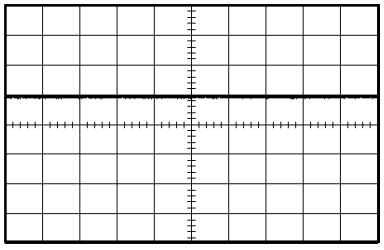
10µs
200mV

(41)



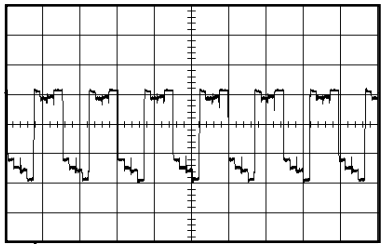
20µs
1.0V

(32)



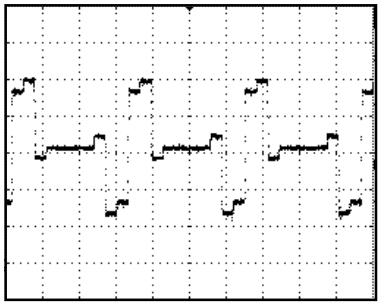
20µs
50V

(37)



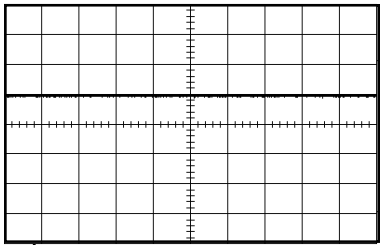
10µs
200mV

(42)



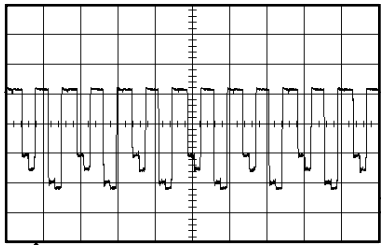
20µs
1.0V

(33)



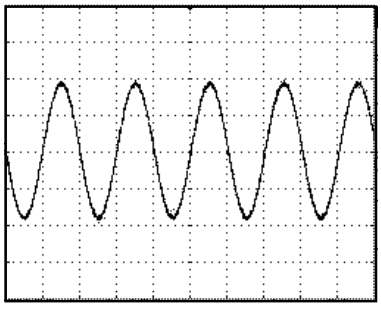
20µs
50V

(38)



500µs
200mV

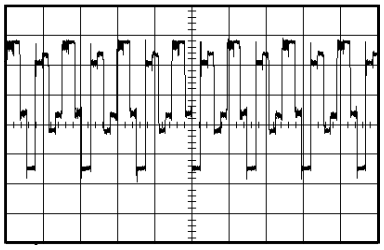
(43)



CRT/CVM

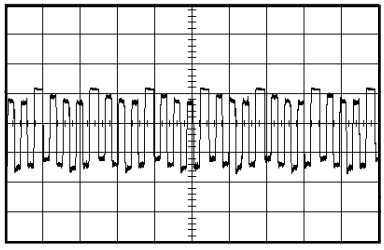
20µs
1.0V

(34)



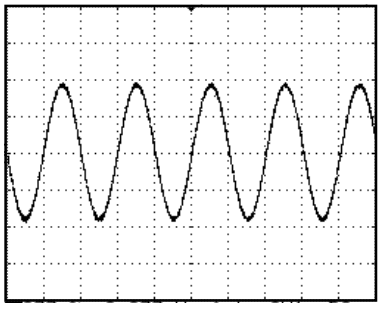
20µs
50V

(39)



500µs
200mV

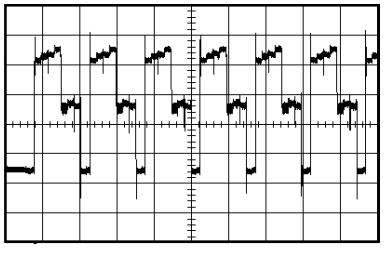
(44)



INTERFACE

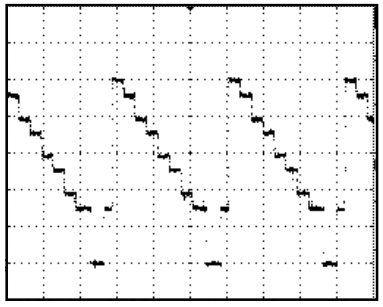
20µs
1.0V

(35)



10µs
200mV

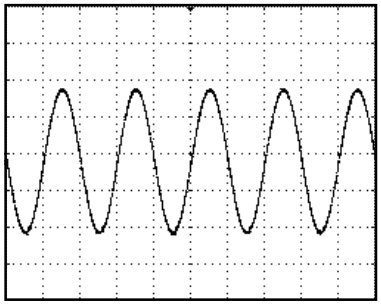
(40)



MICON2

500µs
1.0V

(45)



NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

500µs
1.0V

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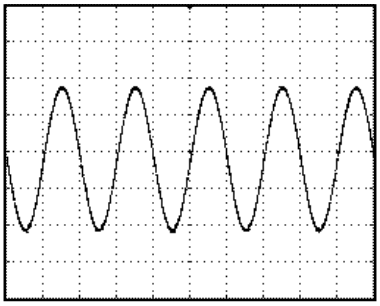
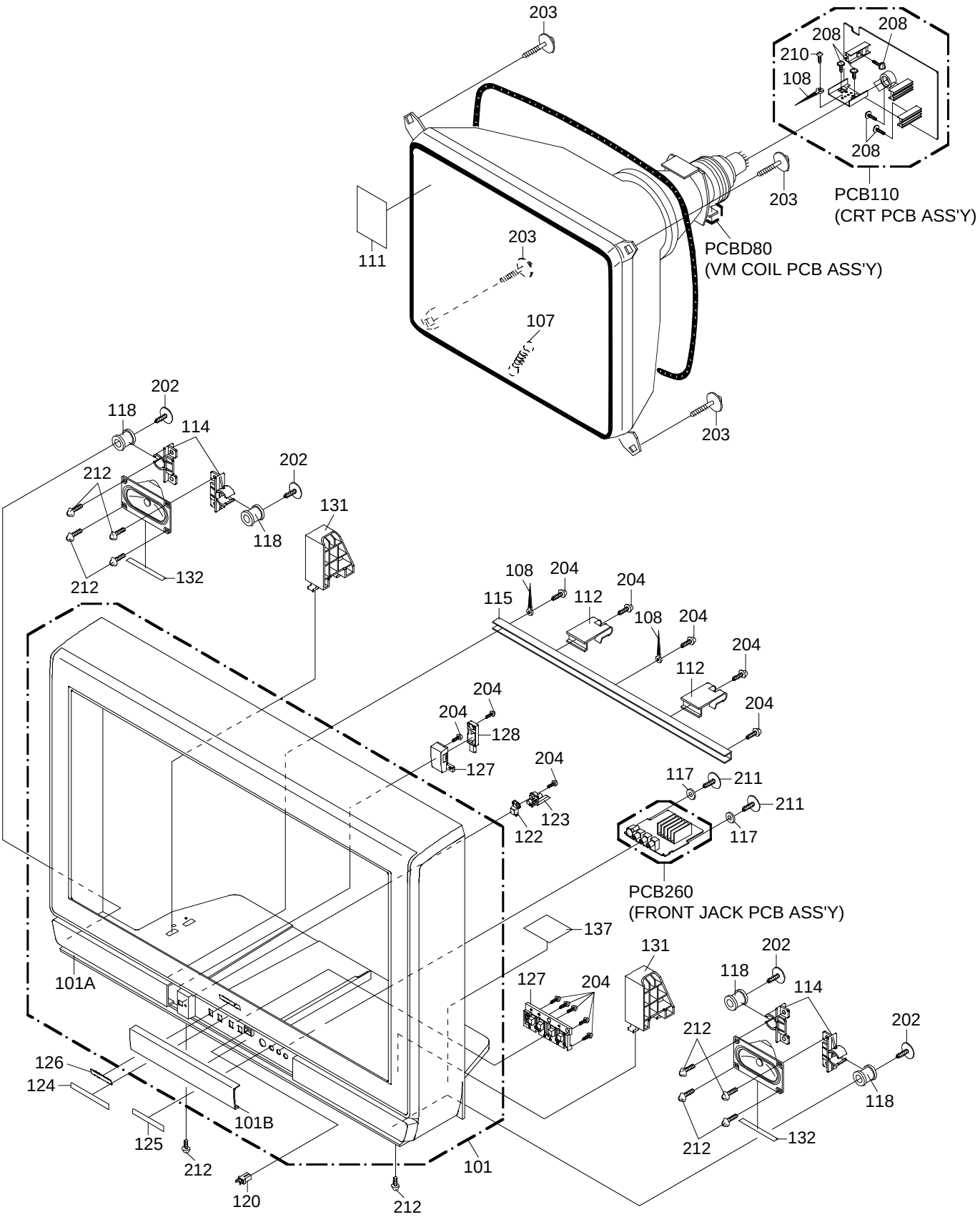
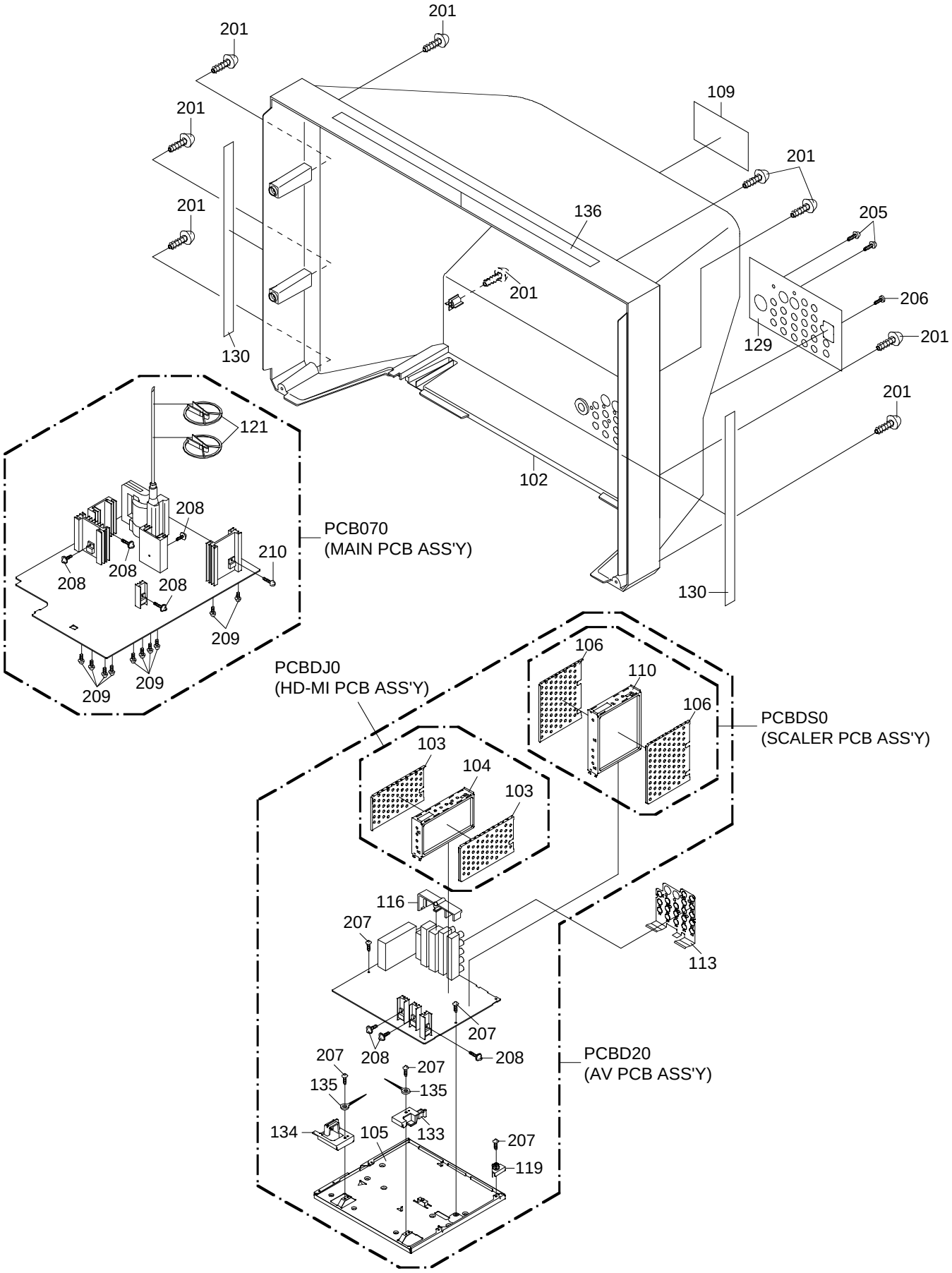


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

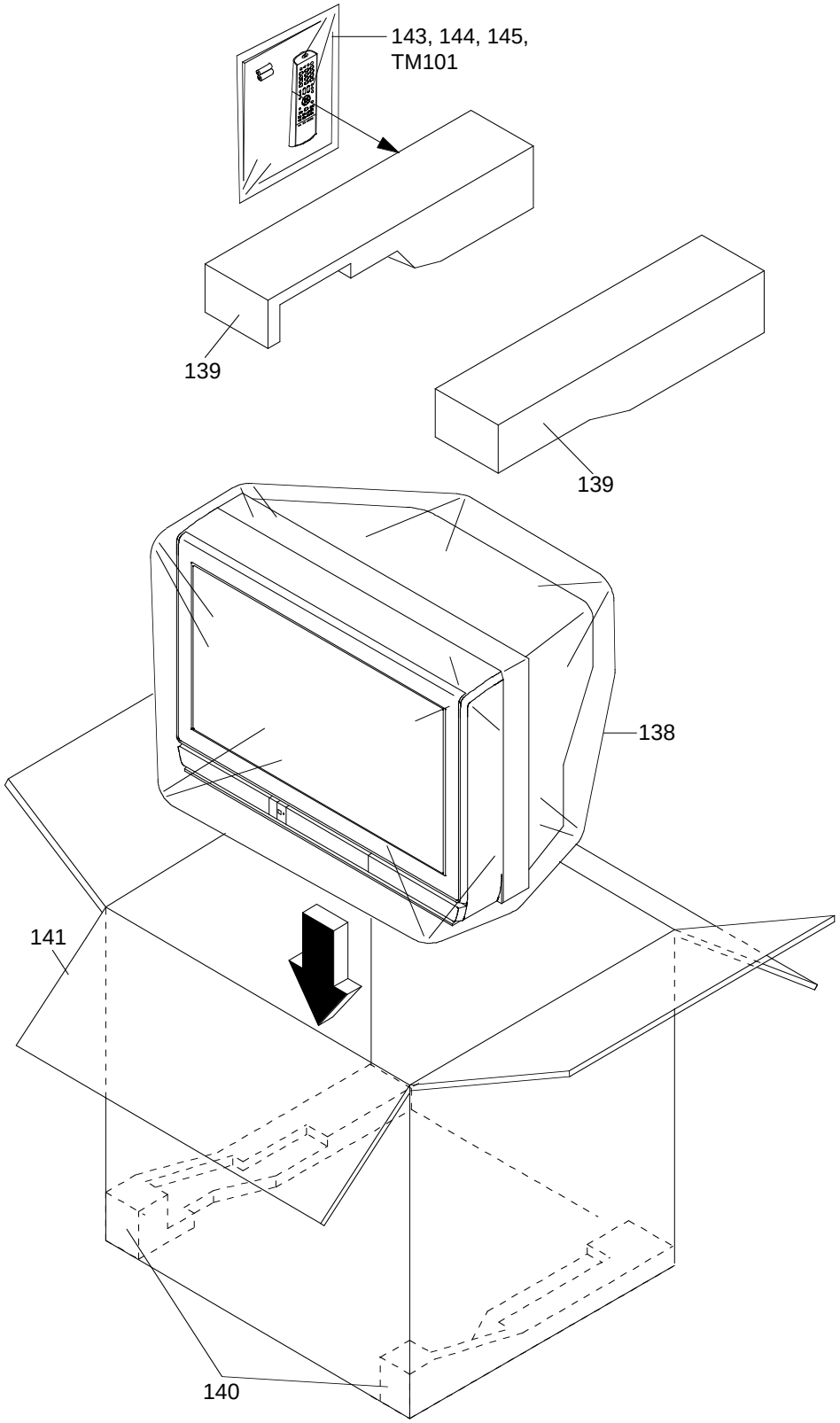
MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW
(PACKING DIAGRAM)



MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
101	AE007945	7A7010127A	FRONT CABI ASS'Y	
101A	AE007946	701APJ0090	CABINET,FRONT	
101B	AE007947	712APJ0088	DOOR	
102	AE007948	A3U0010740L	CABINET,BACK ASSY	
103	AE004831	752WSA0413	HDMI SHIELD,COVER	
104	AE004832	752WSA0414	HDMI SHIELD,BOTTOM	
105	AE005433	752WSA0448	PLATE,BOTTOM	
106	AE005202	752WSA0429	HDMI SHIELD,COVER2	
107	BZ710660	741WUA0021	SPRING,EARTH	
108	BZ710039	8995034000	CORD CLIP UL CO.	
109	AE007949	7225490186	SHEET,RATING	
110	AE005203	752WSA0430	HDMI SHIELD,BOTTOM2	
111	AE007950	7230007954	POP LABEL	
112	AE004839	761WPA0294	COIL HOLDER	
113	AE004838	752WSA0433	SHIELD,AV JACK	
114	AD302015	761WPA0220	HOLDER,SPEAKER	
115	AE006107	752WSAA084	ANGLE,FRONT	
116	AE007951	761WPA0402	HOLDER,JACK	
117	AE007952	82A30A610U	WASHER	
118	AD300518	801WR00001	DAMPER SPEAKER	
119	AE005576	761WPA0347	HOLDER,PCB-1	
120	AE004841	890DL20000	DOOR LATCHES(DL2)	
121	BZ710260	899HV3T000	HOLDER,ANODE WIRE	
122	AE007953	711WPA0231	PLATE,FRONT	
123	AE007954	713WPA0361	GUIDE,REMOCON	
124	AE004824	7230007791	SHEET,BUTTON	
125	AE004825	7230007792	AV LABEL	
126	AE003022	723549A026	BADGE,BRAND	
127	AE007955	735WPB0319	BUTTON ASS'Y	
128	AE007956	738WPA0159	STOPPER,BUTTON	
129	AE007957	7230007957	SHEET,JACK	
130	AE005969	800WQ0A092	FELT SHEET	
131	AE007958	761WPA0385	HOLDER,CRT	
132	AE005279	800WF00062	CUSHION	55x5xT1
133	AE005579	761WPA0348	HOLDER,PCB-2	
134	AE005580	761WPA0349	HOLDER,PCB-3	
135	AD301370	899EFBA002	WIRING-CLIP	
136	AE006502	800WQ0A099	FELT SHEET	
138	AE006094	791WHAA118	FILM BAG	
139	AE007959	792AHA0107	PACKAGE,TOP	
140	AE007960	792AHA0108	PACKAGE,BOTTOM	
141	AE007961	793ACD0513	GIFT BOX	
142	AE007962	A3U0010975	INSTRUCTION BOOK KIT	
143	AE006352	JA4LD200A	POLYBAG,INSTRUCTION(RED CAUTION)	
144	AE007963	J3U00121A	INSTRUCTION BOOK(E/S)	
145	AE006353	J3N11517A	REGISTRASTION CARD	
201	AE003522	8117540B0U	SCREW,TAP TITE(B0) TRUSS	4x20
202	AE005398	8162540A6U	SCREW,TAPPING (BO) WASHER 18	
203	AE007964	8141M60D5U	SCREW,TAP TITE(P) GW-D	6x45
204	AE003528	8110630A0U	SCREW,TAP TITE(P) BRAZIER	3x10
205	AE003529	811063080U	SCREW,TAP TITE(P) BRAZIER	3x8
206	AE005214	810213080U	SCREW,PAN	M3x8
207	AE003526	810923080U	SCREW,TAP TITE(B) BIND	3x8
208	AE003524	8109I30A0U	SCREW,TAP TITE(B) WH7	3x10
209	AE005917	810963080Q	SCREW,TAP TITE(B) BRAZIER	3x8
210	AE003531	810763080U	SCREW,TAP TITE(S) BRAZIER	3x8
211	AE004850	8159130A0U	SCREW,TAPPING(B) WASHER12 PAN	3x10
212	AE006235	8117140A2U	SCREW,TAPPING(B0) PAN	4x12

MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
101	AE007945	7A7010127A	FRONT CABI ASS'Y	
101A	AE007946	701APJ0090	CABINET,FRONT	
101B	AE007947	712APJ0088	DOOR	
102	AE007965	A3U0020740L	CABINET,BACK ASSY	
103	AE004831	752WSA0413	HDMI SHIELD,COVER	
104	AE004832	752WSA0414	HDMI SHIELD,BOTTOM	
105	AE005433	752WSA0448	PLATE,BOTTOM	
106	AE005202	752WSA0429	HDMI SHIELD,COVER2	
107	BZ710660	741WUA0021	SPRING,EARTH	
108	BZ710039	8995034000	CORD CLIP UL CO.	
109	AE007966	7225490202	SHEET,RATING	
110	AE005203	752WSA0430	HDMI SHIELD,BOTTOM2	
111	AE007967	7230007969	POP LABEL	
112	AE004839	761WPA0294	COIL HOLDER	
113	AE004838	752WSA0433	SHIELD,AV JACK	
114	AD302015	761WPA0220	HOLDER,SPEAKER	
115	AE006107	752WSAA084	ANGLE,FRONT	
116	AE007951	761WPA0402	HOLDER,JACK	
117	AE007952	82A30A610U	WASHER	
118	AD300518	801WR00001	DAMPER SPEAKER	
119	AE005576	761WPA0347	HOLDER,PCB-1	
120	AE004841	890DL20000	DOOR LATCHES(DL2)	
121	BZ710260	899HV3T000	HOLDER,ANODE WIRE	
122	AE007953	711WPA0231	PLATE,FRONT	
123	AE007954	713WPA0361	GUIDE,REMOCON	
124	AE004824	7230007791	SHEET,BUTTON	
125	AE004825	7230007792	AV LABEL	
126	AE003022	723549A026	BADGE,BRAND	
127	AE007955	735WPB0319	BUTTON ASS'Y	
128	AE007956	738WPA0159	STOPPER,BUTTON	
129	AE007957	7230007957	SHEET,JACK	
130	AE005969	800WQ0A092	FELT SHEET	
131	AE007958	761WPA0385	HOLDER,CRT	
132	AE005279	800WF00062	CUSHION	55x5xT1
133	AE005579	761WPA0348	HOLDER,PCB-2	
134	AE005580	761WPA0349	HOLDER,PCB-3	
135	AD301370	899EFBA002	WIRING-CLIP	
136	AE006502	800WQ0A099	FELT SHEET	
137	AD301425	7240001120	SHEET,CSA	
138	AE006094	791WHAA118	FILM BAG	
139	AE007959	792AHA0107	PACKAGE,TOP	
140	AE007960	792AHA0108	PACKAGE,BOTTOM	
141	AE007968	793ACD0515	GIFT BOX	
142	AE007969	A3U0020975	INSTRUCTION BOOK KIT	
143	AE006363	JA4LD100A	POLYBAG,INSTRUCTION(RED CAUTION)	
144	AE007970	J3U00221A	INSTRUCTION BOOK (E/F)	
201	AE003522	8117540B0U	SCREW,TAP TITE(B0) TRUSS	4x20
202	AE005398	8162540A6U	SCREW,TAPPING (BO) WASHER 18	
203	AE007964	8141M60D5U	SCREW,TAP TITE(P) GW-D	6x45
204	AE003528	8110630A0U	SCREW,TAP TITE(P) BRAZIER	3x10
205	AE003529	811063080U	SCREW,TAP TITE(P) BRAZIER	3x8
206	AE005214	810213080U	SCREW,PAN	M3x8
207	AE003526	810923080U	SCREW,TAP TITE(B) BIND	3x8
208	AE003524	8109I30A0U	SCREW,TAP TITE(B) WH7	3x10
209	AE005917	810963080Q	SCREW,TAP TITE(B) BRAZIER	3x8
210	AE003531	810763080U	SCREW,TAP TITE(S) BRAZIER	3x8
211	AE004850	8159130A0U	SCREW,TAPPING(B) WASHER12 PAN	3x10
212	AE006235	8117140A2U	SCREW,TAPPING(B0) PAN	4x12

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			RESISTORS	
⚠R401	AE002516	R4X5T6222F	R,METAL	2.2K OHM 1/6W
⚠R403	BZ210105	R4X5T6183F	R,METAL	18K OHM 1/6W
⚠R405	BZ210231	R4X5T6153F	R,METAL	15K OHM 1/6W
⚠R406	AE008031	R3X18A390J	R,METAL OXIDE	39 OHM 2W
⚠R408	BZ210063	R3X181R22J	R,METAL OXIDE	0.22 OHM 1W
⚠R413	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R416	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R417	AE008032	R3X18A561J	R,METAL OXIDE	560 OHM 2W
⚠R429	AD301593	R002T23R3J	RC	3.3 OHM 1/2W
⚠R430	AD300421	R5X2CF1R8J	R,CEMENT	1.8 OHM 10W
⚠R434	AD301593	R002T23R3J	RC	3.3 OHM 1/2W
⚠R438	AE005419	R3X181272J	R,METAL OXIDE	2.7K OHM 1W
⚠R445	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R455	BZ210021	R65582680J	R,FUSE	68 OHM 1/2W
R460	AE004808	R0G3K2221K	RC	220 OHM 1/2W
⚠R462	BZ210211	R3X28B221J	R,METAL OXIDE	220 OHM 3W
⚠R468	BZ210003	R3K181102J	R,METAL OXIDE	1K OHM 1W
⚠R472	AD302347	R3X181120J	R,METAL OXIDE	12 OHM 1W
⚠R473	AD302347	R3X181120J	R,METAL OXIDE	12 OHM 1W
⚠R483	AE000147	R3X181220J	R,METAL OXIDE	22 OHM 1W
⚠R492	AE002520	R3X181100J	R,METAL OXIDE	10 OHM 1W
⚠R501	BZ210233	R4X5T6272F	R,METAL	2.7K OHM 1/6W
⚠R503	BZ210206	R002T2155J	RC	1.5M OHM 1/2W
⚠R508	AD301203	R002T4101J	RC	100 OHM 1/4W
⚠R510	BZ210080	R0G3K2275K	RC	2.7M OHM 1/2W
⚠R516	AD301143	R3X181R27J	R,METAL OXIDE	0.27 OHM 1W
⚠R517	AE005735	R63881R22J	R,FUSE	0.22 OHM 1W
⚠R518	AD301143	R3X181R27J	R,METAL OXIDE	0.27 OHM 1W
⚠R524	AE001073	R3X18A331J	R,METAL OXIDE	330 OHM 2W
⚠R525	BZ210059	R3X1812R2J	R,METAL OXIDE	2.2 OHM 1W
⚠R530	AE004810	R5X2CF010J	R,CEMENT	1 OHM 10W
⚠R545	AE003270	R3X28B2R7J	R,METAL OXIDE	2.7 OHM 3W
⚠R548	BZ210051	R3X18AR47J	R,METAL OXIDE	0.47 OHM 2W
⚠R559	BZ210220	R002T2224J	RC	220K OHM 1/2W
⚠R560	AE005234	R5X2AER47J	R,CEMENT	0.47 OHM 7W
⚠R563	BZ210078	R65584101J	R,FUSE	100 OHM 1/4W
⚠R801	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R834	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R842	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R855	BZ210185	R65582151J	R,FUSE	150 OHM 1/2W
⚠R881	AD302132	R3X18A271J	R,METAL OXIDE	270 OHM 2W
⚠R3411	AD301597	R3X18AR39J	R,METAL OXIDE	0.39 OHM 2W
⚠R3412	AD301597	R3X18AR39J	R,METAL OXIDE	0.39 OHM 2W
R8103	AD301203	R002T4101J	RC	100 OHM 1/4W
			CAPACITORS	
⚠C403	BZ110195	E02LU8220M	CE	22 UF 100V
⚠C404	AE004798	E61DFB470M	CE	47 UF 160V
⚠C412	AE004366	P4J7F3304J	CMPP	0.3 UF 250V PMS
C417	AE000606	P3N1F5103J	CPP	0.01 UF 630V
⚠C418	AE004807	P4N8FK852H	CMPP	C 0.0085UF 1.5KV
C424	AE003039	P4N8FK682H	CMPP	C 0.0068UF 1.5KV
C425	AE004367	P4J7F3335J	CMPP	3.3 UF 250V PMS
C426	BZ110204	E0ELFD220M	CE	22 UF 250V
⚠C429	AD301434	E02LU4101M	CE	100 UF 35V
⚠C430	BZ110101	E5EZF3222M	CE	2200 UF 25V
C433	BZ110239	C03L0R7L2K	CC	330 PF 2KV R
⚠C434	BZ110124	E5EZF4222M	CE	2200 UF 35V
C435	AE003039	P4N8FK682H	CMPP	C 0.0068UF 1.5KV
C438	AE004933	P4J7F3333J	CMPP	0.033 UF 250V PMS
C445	AE000606	P3N1F5103J	CPP	0.01 UF 630V
⚠C446	BZ110225	E5EZFD220M	CE	22 UF 250V
⚠C502	BZ110025	P2122B224M	CMP	0.22 UF 275V ECQUL
⚠C505	BZ110035	P2122B104M	CMP	0.1 UF 275V ECQUL
C506	AE002229	P411F4393J	CMPP	0.039 UF 400V ECWF
⚠C509	BZ110084	E5EZFC220M	CE	22 UF 200V
C512	BZ110202	C0PLRR713K	CC	0.001 UF 2KV R

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			CAPACITORS	
⚠C517	AE004934	CD39B0MH2K	CC	220 PF 250V
⚠C519	AE000950	CD39E0ME3M	CC	0.0015UF 250V
⚠C525	BZ110222	CD39E0MH3M	CC	0.0022UF 250V
⚠C528	BZ110226	C0JBB07H3K	CC	0.0022UF 2KV B
⚠C529	BZ110226	C0JBB07H3K	CC	0.0022UF 2KV B
⚠C530	AE003883	E51DFC102M	CE	1000 UF 200V
⚠C536	BZ110224	E5EZF3332M	CE	3300 UF 25V
⚠C541	BZ110076	E02LF1222M	CE	2200 UF 10V
⚠C542	BZ110053	E02LF3102M	CE	1000 UF 25V
C543	BZ110191	C03L0R7E3K	CC	0.0015UF 2KV R
⚠C545	AE004799	E61SFC221M	CE	220 UF 200V
⚠C548	BZ110055	E5EZF4102M	CE	1000 UF 35V
C549	BZ110183	C03L0R7W2K	CC	820 PF 2KV R
C567	BZ110209	E0ELF3222M	CE	2200 UF 25V
⚠C572	AE005174	E61FF1222D	CE	2200 UF 10V
C808	AE003828	C13DB0713K	CC	0.001 UF 2KV B
C809	AD301347	E0ELFD330M	CE	33 UF 250V
C870	AE000272	E50HU2470M	CE	47 UF 16V
C3406	AE004935	E02LF0332M	CE	3300 UF 6.3V
			DIODES	
D001	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D101	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D102	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D103	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D104	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D105	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D106	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D107	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D108	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D109	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D110	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D111	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D112	BZ410012	D28TQS04N0	DIODE,SCHOTTKY	11EQS04N-TA1B2
⚠D402	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
⚠D403	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D404	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D405	AE004792	DCBFMQ3GU0	DIODE	FMQ-3GULF027-102
D406	BZ410103	D2WXGP10J0	DIODE,RECTIFIER	RGP10J-EIC
D407	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
⚠D408	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D409	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
D410	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
D411	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
⚠D412	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
D413	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D414	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
⚠D415	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
D417	AE004359	D97U03901B	DIODE,ZENER	MTZJ39B T-77
D418	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D420	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
D421	AE004790	D2WX0216E0	DIODE,SILICON	RGP02-16E
D422	AE004790	D2WX0216E0	DIODE,SILICON	RGP02-16E
D423	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D424	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D501	BZ410031	D6CE24110A	DIODE,VARISTA	ENE241D-10A-Q6
D502	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D503	AD302208	D97U03R31B	DIODE,ZENER	MTZJ3.3B T-77
D504	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D505	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D506	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
⚠D507	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
D508	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D509	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D510	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
⚠D511	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
D512	BZ410114	D2WXGP10K0	DIODE,RECTIFIER	RGP10K-EIC

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			DIODES	
D514	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D515	AE006060	D28T0ERB20	DIODE,RECTIFIER	10ERB20-TA1B2
D516	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D517	AD300671	D97U01801B	DIODE,ZENER	MTZJ18B T-77
D518	BZ410066	D97U06R21B	DIODE,ZENER	MTZJ6.2B T-77
D519	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D520	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D521	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D522	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D523	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D524	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D525	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D526	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D527	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D528	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
D529	AD300671	D97U01801B	DIODE,ZENER	MTZJ18B T-77
⚠D530	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D531	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D532	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
⚠D533	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
⚠D534	AE003872	DOU002720M	DIODE,VARISTA	DSS-272M-S00B
D535	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
⚠D536	AD301980	D2CF2016L0	DIODE,SILICON	FE201-6L49
⚠D537	BZ410091	D230PF6DT0	DIODE,SILICON	FEPF6DT
⚠D539	BZ410091	D230PF6DT0	DIODE,SILICON	FEPF6DT
D540	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D541	AD301980	D2CF2016L0	DIODE,SILICON	FE201-6L49
D543	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D544	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D546	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D547	BZ410084	D97U01101B	DIODE,ZENER	MTZJ11B T-77
D548	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D549	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D550	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
⚠D551	AE004936	D6E027110A	DIODE,VARISTA	ENE271D-10A
D552	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D554	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D601	AE006394	D28T0ERB60	DIODE,RECTIFIER	10ERB60-TA1B2
D606	AE004358	D97U02R01B	DIODE,ZENER	MTZJ2.0B T-77
D607	AD300069	D97U02701B	DIODE,ZENER	MTZJ27B T-77
D608	AE006394	D28T0ERB60	DIODE,RECTIFIER	10ERB60-TA1B2
D609	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D610	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D611	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D612	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D613	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D614	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D615	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D616	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D617	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D618	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D619	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D621	BZ410034	D97U01301B	DIODE,ZENER	MTZJ13B T-77
D622	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D701	BZ410022	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77
D702	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D703	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D704	BZ410022	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77
D705	BZ410084	D97U01101B	DIODE,ZENER	MTZJ11B T-77
D801	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D802	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D803	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D807	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D808	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D809	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D853	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			DIODES	
D854	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D855	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D856	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D901	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D902	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D903	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D1001	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1002	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1003	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1004	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1091	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D2001	BZ410077	D2WXSB1400	DIODE,SCHOTTKY	SB140-EIC
D2009	BZ410054	0021721150	LED	SLR-342VCT32
D2101	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D2102	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D2103	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3401	BZ410043	D2WT011E10	DIODE SILICON	11E1-EIC
D3403	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D3404	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D3451	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D3601	AE004937	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3602	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3603	AE004937	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3604	AE004793	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3605	AE004793	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3609	AE004794	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3613	AE004794	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
			ICS	
IC101	AE005608	I56F57118A	IC	OEC7118A
IC102	79097849	I9UF032290	IC	PST3229NR
IC103	79097849	I9UF032290	IC	PST3229NR
IC199	AE008033	S3U0010E01	MEMORY DATA	AT24C256N-10SU-2.7
⚠IC401	BZ611117	I03TD80410	IC	LA78041
⚠IC402	AD302356	I03S065100	IC	LA6510
⚠IC501	AE002809	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
⚠IC502	AE006398	I2BT067530	IC	STR-W6753
⚠IC503	AE002809	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
⚠IC504	AD302211	I1KJ9A431A	IC	KIA431A-AT
⚠IC505	AD301929	I1KA78R090	IC	KIA278R09PI
⚠IC506	AD302211	I1KJ9A431A	IC	KIA431A-AT
IC602	AE004361	I05DD13170	IC	TA1317ANG
IC603	AE004362	I05DE13600	IC	TA1360ANG
IC701	AE002728	I01F05853B	IC	AN15853B-E1
IC702	AE004651	I0QF025840	IC	NJM2584AM(TE1)
IC705	AE004800	I05FE13830	IC	TA1383FG
IC706	AE004651	I0QF025840	IC	NJM2584AM(TE1)
IC707	BZ611104	I0QF02533V	IC	NJM2533V(TE2)
IC902	AE006396	I19FFP3440	IC	MSP3440G-QA-C12-001(BBE)
⚠IC1001	AE006397	I1MFPA2020	IC	TA2024-ASE
IC1501	AE005607	I55FE0A920	IC	TC90A92AFG
IC2101	AE005610	IFSK0883C0	IC	MST9883C-LF-110
⚠IC3400	BZ611089	I1KA98R09A	IC	KIA78R09API
⚠IC3401	AD301931	I1KA78R050	IC	KIA278R05PI
⚠IC3402	AE003914	I1KA98R330	IC	KIA278R33PI
IC3451	AE006395	I0GF91ZPH0	IC	PQ070XZ01ZPH
IC3452	AE006395	I0GF91ZPH0	IC	PQ070XZ01ZPH
IC3601	AE004654	I1KF98D330	IC	KIA78D33F
IC3602	AE004654	I1KF98D330	IC	KIA78D33F
IC3604	AE001295	I0QJ045800	IC	NJM4580M(TE1)
IC3605	AE004805	I5PF099930	IC	SII9993CTG100
IC3606	AE008034	S3U0010E02	MEMORY DATA	BR24L02F-WE2
IC3607	AE004802	I1FF043340	IC	CS4334-KSZR
IC3608	AE008035	S3U0010E03	MEMORY DATA	BR24L32F-WE2
IC3611	AE006399	ICMF08RD20	IC	SST89E58RD2-40-C-TQJE
IC3612	AE003923	I5CF01G080	IC	SN74AHC1G08DCKR
IC3901	AE005611	IFTK023010	IC	FLI2301-LF-BD

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			ICS	
IC3902	AE005609	IF6J032B26	IC	MT48LC2M32B2P-6(Y14W)
			TRANSISTORS	
Q101	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q102	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q103	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q104	BZ510022	TNYJJ05001	COMPOUND TRANSISTOR	DTC114TKAT146
⚠Q401	AE004385	TC5TC3328Y	TRANSISTOR,SILICON	2SC3328_Y(TPE6_F)
⚠Q402	AE004814	T250029200	FET	2SK2920(Q)
⚠Q403	AE008036	TCKF059050	TRANSISTOR,SILICON	2SC59050010R
Q404	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q405	AE005876	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T1
Q407	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q408	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q410	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q413	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q414	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q415	AE004817	TC3F046340	TRANSISTOR,SILICON	2SC4634
Q501	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q502	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q503	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q504	AE008037	TJXG20NM50	FET	STP20NM50FP
⚠Q505	BZ510070	TCAT032034	TRANSISTOR,SILICON	KTC3203_Y-AT
Q506	BZ510105	TCAT03209Y	TRANSISTOR,SILICON	KTC3209_Y-AT
Q507	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
⚠Q508	BZ510004	TA3T016240	TRANSISTOR,SILICON	2SA1624-AA
⚠Q509	BZ510105	TCAT03209Y	TRANSISTOR,SILICON	KTC3209_Y-AT
Q510	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q601	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q602	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q603	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q604	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q605	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q606	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q607	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q608	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q611	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q612	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q613	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q615	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q616	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q617	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q701	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q702	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q703	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q704	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q705	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q706	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q708	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q709	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q710	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q716	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q717	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
⚠Q801	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
⚠Q802	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
⚠Q803	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
Q804	BZ510073	TAATA12660	TRANSISTOR,SILICON	KTA1266-AT(Y,GR)
⚠Q810	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q811	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q812	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q814	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q852	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q853	AE004818	TCUT0752GY	TRANSISTOR,SILICON	2SC752(G)TM_Y(TP2
Q854	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q855	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q856	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q857	BZ510073	TAATA12660	TRANSISTOR,SILICON	KTA1266-AT(Y,GR)

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		TRANSISTORS		
Q858	AE004815	TA10021400	TRANSISTOR,SILICON	2SA2140
Q859	AE004816	TC10059930	TRANSISTOR,SILICON	2SC5993
Q860	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q1002	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1098	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1099	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1501	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1502	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q1503	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1504	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q1505	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q2001	BZ510021	TNYJC05001	COMPOUND TRANSISTOR	DTC124EKAT146
⚠Q3403	AD301934	TBA0013660	TRANSISTOR,SILICON	KTB1366(O,Y)
Q3404	BZ510022	TNYJJ05001	COMPOUND TRANSISTOR	DTC114TKAT146
Q3603	BZ510113	T27T030180	FET	2SK3018T106
Q3604	BZ510113	T27T030180	FET	2SK3018T106
Q3605	BZ510113	T27T030180	FET	2SK3018T106
Q3606	BZ510113	T27T030180	FET	2SK3018T106
Q3607	BZ510113	T27T030180	FET	2SK3018T106
Q3608	BZ510081	TPYJA05001	COMPOUND TRANSISTOR	DTA143EKAT146
Q3609	BZ510045	TNYJD05001	COMPOUND TRANSISTOR	DTC144EKAT146
Q3610	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3611	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3612	BZ510045	TNYJD05001	COMPOUND TRANSISTOR	DTC144EKAT146
Q3613	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3901	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3902	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3903	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3904	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3905	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3906	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
		COILS &TRANSFORMERS		
L002	BZ310117	021LA6330K	COIL	33 UH
L402	AE004749	022R00042A	COIL,LINEARITY	ELH5L7150N
L405	AE004330	02D3000064	COIL,CHOKE	ELC18B821LM
L406	AE004329	02D3000063	COIL,CHOKE	ELC18B151LK
L407	AE007112	02D3000073	COIL,CHOKE	ELC18B151EN
L408	AE004751	02D3000069	COIL,CHOKE	ELC18B103LM
⚠L502	AE004327	029X000118	COIL,LINE FILTER	SS28V-R25080-CH
⚠L503	AE004327	029X000118	COIL,LINE FILTER	SS28V-R25080-CH
L504	BZ310150	02167E220K	COIL	R7 22 UH
L505	BZ310118	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
L506	BZ310150	02167E220K	COIL	R7 22 UH
L508	AD301785	02167E100K	COIL	R6-1 10 UH
L602	BZ310039	02167F220J	COIL	22 UH
L603	BZ310039	02167F220J	COIL	22 UH
L604	BZ310039	02167F220J	COIL	22 UH
L606	BZ310183	021LA6220J	COIL	22 UH
L607	BZ310039	02167F220J	COIL	22 UH
L701	BZ310040	02167F470J	COIL	47 UH
L702	BZ310040	02167F470J	COIL	47 UH
L703	BZ310040	02167F470J	COIL	47 UH
L705	BZ310041	02167F101J	COIL	100 UH
L706	BZ310040	02167F470J	COIL	47 UH
L707	BZ310040	02167F470J	COIL	47 UH
L708	BZ310040	02167F470J	COIL	47 UH
L710	BZ310040	02167F470J	COIL	47 UH
L711	BZ310043	021LA6150K	COIL	15 UH
L712	BZ310041	02167F101J	COIL	100 UH
L805	BZ310001	021673101J	COIL	100 UH
L806	BZ310002	021673101K	COIL	100 UH
L807	BZ310002	021673101K	COIL	100 UH
L808	AD300613	02167F150J	COIL	15 UH
L809	AD300613	02167F150J	COIL	15 UH
L810	AD300613	02167F150J	COIL	15 UH
L901	BZ310141	02167F100J	COIL	10 UH

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		COILS &TRANSFORMERS		
L904	BZ310141	02167F100J	COIL	10 UH
L905	BZ310141	02167F100J	COIL	10 UH
L1001	AE004748	021W0G100M	COIL	10 UH
L1002	AE004748	021W0G100M	COIL	10 UH
L1003	AE004748	021W0G100M	COIL	10 UH
L1004	AE004748	021W0G100M	COIL	10 UH
L1005	BZ310118	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
L1501	AE005592	0216S8330K	COIL	F 33 UH
L1502	AE005285	0216S8470K	COIL	F 47 UH
L1503	AE005591	0216S81R5M	COIL	F 1.5 UH
L1504	AE005285	0216S8470K	COIL	F 47 UH
L1505	AE005589	0216S8100K	COIL	F 10 UH
L1506	AE005589	0216S8100K	COIL	F 10 UH
L1507	AE005589	0216S8100K	COIL	F 10 UH
L1508	AE005590	0216S8150K	COIL	F 15 UH
L1509	AE005590	0216S8150K	COIL	F 15 UH
L1511	AE005590	0216S8150K	COIL	F 15 UH
L1512	AE005590	0216S8150K	COIL	F 15 UH
L1513	AE005058	0216S4220J	COIL	22 UH
L1514	AE005592	0216S8330K	COIL	F 33 UH
L2101	AE005285	0216S8470K	COIL	F 47 UH
L2103	AE005285	0216S8470K	COIL	F 47 UH
L2104	AE005593	0216SD5R6J	COIL	5.6 UH
L2105	AE005593	0216SD5R6J	COIL	5.6 UH
L2106	AE005593	0216SD5R6J	COIL	5.6 UH
L3401	BZ310150	02167E220K	COIL	R7 22 UH
L3402	BZ310150	02167E220K	COIL	R7 22 UH
L3601	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3602	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3603	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3604	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3901	AE005285	0216S8470K	COIL	F 47 UH
L3903	AE005588	0216S4270J	COIL	27 UH
L3907	AE005285	0216S8470K	COIL	F 47 UH
L3908	AE005285	0216S8470K	COIL	F 47 UH
L3909	AE005590	0216S8150K	COIL	F 15 UH
T401	AE004332	0450190181	TRANS,HORIZONTAL DRIVE	ETH19K208AZ
⚠T402	AE004755	0486290014	TRANSFORMER,PULSE	86290014
⚠T501	AE004942	048119003S	TRANSFORMER,SWITCHING	8119003S
⚠T502	AE008020	0481490044	TRANSFORMER,SWITCHING	81490044
		JACKS		
J705	AE002759	060J431020	RCA JACK	MSP-213V2-432_NI_LF
J706	AE004759	060Q431019	RCA JACK	YKC21-7306N
J707	AE004759	060Q431019	RCA JACK	YKC21-7306N
J708	AE004760	063D000078	JACK PLATE	MSP-803V-BBA-432_NI_LF
J709	AE004760	063D000078	JACK PLATE	MSP-803V-BBA-432_NI_LF
⚠J801	AE004762	066F130022	SOCKET,CATHODE RAY TUBE	ISDW03S-F
J2201	AE004761	063D700010	JACK	MDC-012V1-A_LF
J2202	AE004756	060J401104	RCA JACK	MTJ-032-03A-30FE
J2203	AE004758	060J401106	RCA JACK	MTJ-032-03A-32FE
J2204	AE004757	060J401105	RCA JACK	MTJ-032-03A-31FE
J3601	AE002950	060J421037	RCA JACK	MTJ-032-05A-32-FE
J3602	AE002951	060J421030	RCA JACK	MTJ-032-05A-31-FE
		SWITCHES		
SW2001	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2002	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2003	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2004	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2005	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
		P.C.BOARD ASSEMBLIES		
PCB070	AE008024	A3U0010070L	PCB ASS'Y	CMD008A
PCB110	AE008025	A3U0010110L	PCB ASS'Y	CCD002B
PCB260	AE008026	A3U0010260L	PCB ASS'Y	CED008B
PCBD20	AE008027	A3U0010D20L	PCB ASS'Y	CED019A
PCBD80	AE008028	A3U0010D80L	PCB ASS'Y	CED012B
PCBDJ0	AE008029	A3U0010DJ0L	PCB ASS'Y	CED011A

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		P.C.BOARD ASSEMBLIES		
PCBDS0	AE008030	A3U0010DS0L	PCB ASS'Y	CED020A
		MISCELLANEOUS		
B403	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B404	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B405	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B851	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B852	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B853	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B1501	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B2102	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3601	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3602	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3603	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3604	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3608	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3609	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3610	BZ310186	024HC31022	CORE,BEADS	FCM2012H-102T04
B3611	BZ310186	024HC31022	CORE,BEADS	FCM2012H-102T04
BT001	AE005640	141R004016	BATTERY,MANGAN	GR03X-SP2
BT002	AE005640	141R004016	BATTERY,MANGAN	GR03X-SP2
CD101	AE005945	06C32B3303	CORD,CONNECTOR	C32B3303
⚠CD501	AE007513	1209615905	CORD,AC BUSH	9615905
⚠CD507	AE008018	028R340002	COIL,DEGAUSS	8R340002
CD509	AE003641	06CU2D2501	CORD,CONNECTOR	CU2D2501
CD601	AE005597	06CU294002	CORD,CONNECTOR	CU294002
CD603	AE008021	06C3226001	CORD,CONNECTOR	C3226001
CD605	AE005422	06CU273302	CORD,CONNECTOR	CU273302
CD711	AE004953	06CU013005	CORD,CONNECTOR	CU013005
CD802	AE008039	WEL6864038	FLAT CABLE AWM2468 A	WG26 7C GRAY 640MM
CD803	AE005222	06C383037A	CORD,CONNECTOR	C383037A
CD808	BZ614492	WCL6850038	FLAT CABLE AWM2468 A	WG26 5C GRAY 500MM
CD851	AE008038	WAL6860038	FLAT CABLE AWM2468 A	WG26 3C GRAY 600MM
CD852	AD301043	06CU232001	CORD,CONNECTOR	CU232001
CP101	BZ614214	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
CP103	AE001188	069S270639	CONNECTOR PCB SIDE	A2001WR2-7P
CP403	BZ614365	069S120419	CONNECTOR PCB SIDE	A2502WV2-2P
⚠CP404	AE006075	069X460109	CONNECTOR PCB SIDE	B06B-DVS-L_(LF)
⚠CP501	BZ614283	069S420110	CONNECTOR PCB SIDE	A1561WV2-2P
CP502	BZ614176	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
CP504	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP505	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP506	BZ614016	069W01001A	CONNECTOR PCB SIDE	003P-2100
CP509	BZ614420	069S2D0629	CONNECTOR PCB SIDE	A2001WV2-13P
CP510	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP601	BZ614458	069S290629	CONNECTOR PCB SIDE	A2001WV2-9P
CP602	AD301997	067U007029	WIRE HOLDER	B2013H02-7P
CP605	BZ614485	069S270629	CONNECTOR PCB SIDE	A2001WV2-7P
CP711	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP801	BZ614416	069S220629	CONNECTOR PCB SIDE	A2001WV2-2P
CP803	AD301996	069S330010	CONNECTOR PCB SIDE	A2361WV2-3P
CP804	BZ614058	069W010010	CONNECTOR PCB SIDE	005P-2100
CP852	BZ614350	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P
CP853	BZ614349	067U003029	WIRE HOLDER	B2013H02-3P
CD1001	AE004772	06CU241802	CORD,CONNECTOR	CU241802
CD1003	AE004773	06CU263001	CORD,CONNECTOR	CU263001
CD2201	AE004775	06CU283001	CORD,CONNECTOR	CU283001
CD2251	AE005223	06CU013502	CORD,CONNECTOR	CU013502
CP1001	AD301998	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CP1003	BZ614242	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P
CP1004	AD301045	069S140419	CONNECTOR PCB SIDE	A2502WV2-4P
CP2201	AD301796	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP3601	AE004763	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3602	AE004769	069J1K0048	CONNECTOR	IMSA-9130S-20L
CP3604	BZ614239	069S290639	CONNECTOR PCB SIDE	A2001WR2-9P
CP802B	AD300098	069R270589	CONNECTOR PCB SIDE	52147-0710
CP808A	BZ614276	067U005049	WIRE HOLDER	B2013H02-5P

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		MISCELLANEOUS		
CP808B	BZ614212	069R250589	CONNECTOR PCB SIDE	52147-0510
CP851A	BZ614349	067U003029	WIRE HOLDER	B2013H02-3P
CP851B	AD300101	069R230589	CONNECTOR PCB SIDE	52147-0310
CP3604A	AE007361	069J1K0078	CONNECTOR PCB SIDE	IMSA-9130B-20-PT1
CP3901A	AE006384	069R2Y0720	CONNECTOR PCB SIDE	79107-7016
CP3901B	AE005595	069R2Y0700	CONNECTOR PCB SIDE	87760-3416
EL0701	BZ614043	124116281A	EYE LET	XRY16X28BD
EL0702	BZ614044	124120301A	EYE LET	XRY20X30BD
EL1101	BZ614043	124116281A	EYE LET	XRY16X28BD
EL1102	BZ614044	124120301A	EYE LET	XRY20X30BD
⚠F501	BZ614422	081PC6R305	FUSE	51MS063L
⚠F502	AE004346	0835A07005	MICRO FUSE	20N_7000FSW
⚠FB401	AE008019	043734001F	TRANSFORMER,FLYBACK	3734001F
FH501	AE002634	06710T0009	HOLDER,FUSE	EYF-52BCY
FH502	AE002634	06710T0009	HOLDER,FUSE	EYF-52BCY
NR1501	AE004680	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR1502	AE004680	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2101	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2102	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2103	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2104	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2105	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2106	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2107	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR3901	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3902	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3903	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3904	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3905	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3906	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3907	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3908	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3909	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3910	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3911	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3912	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3913	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
OS2001	AD301048	0773071001	REMOTE RECEIVER	RPM7138-WH5
⚠RY501	AE006070	0560X20118	RELAY	G5PA-1-SA(WEC)
⚠RY502	AE003621	0560V50118	RELAY	ALKS329
⚠SP1001	AE008022	070W457009	SPEAKER	MSF-2D5SB10W-1BL
⚠TH502	BZ410079	DF5EL3R0A0	DEGAUSS ELEMENT	ZPB45BL3R0A
TM101	AE006385	076D0KK010	TRANSMITTER	ORT204N7404359-U
⚠TU001	AE005631	0163300016	RF UNIT	115-V-KA35AR
⚠V801	AE008023	098G340501	CRT W/DY	W86MAG183X80
X103	AE004780	100WT01611	CRYSTAL	HC-49/U-S
X603	AE004348	1002R01502	CERAMIC OSCILLATOR	CSBLA503KECZF30-B0
X701	AE004348	1002R01502	CERAMIC OSCILLATOR	CSBLA503KECZF30-B0
X702	AE004349	100CT3R536	CRYSTAL	HC-49/U
X901	BZ613042	100CT01803	CRYSTAL	HC-49/U-S
X1501	AE004628	100DT04201	CRYSTAL	SMD-49
X3601	AE004779	100CT01101	CRYSTAL	HC-49/U-S
X3901	AE005598	100DT01303	CRYSTAL	SMD-49

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

CC..... CERAMIC CAPACITOR
CE..... ALUMI ELECTROLYTIC CAPACITOR
CP..... POLYESTER CAPACITOR
CPP..... POLYPROPYLENE CAPACITOR
CPL..... PLASTIC CAPACITOR
CMP..... METAL POLYESTER CAPACITOR
CMPL..... METAL PLASTIC CAPACITOR
CMPP..... METAL POLYPROPYLENE CAPACITOR

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			RESISTORS	
⚠R401	AE002516	R4X5T6222F	R,METAL	2.2K OHM 1/6W
⚠R403	BZ210105	R4X5T6183F	R,METAL	18K OHM 1/6W
⚠R405	BZ210231	R4X5T6153F	R,METAL	15K OHM 1/6W
⚠R406	AE008031	R3X18A390J	R,METAL OXIDE	39 OHM 2W
⚠R408	BZ210063	R3X181R22J	R,METAL OXIDE	0.22 OHM 1W
⚠R413	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R416	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R417	AE008032	R3X18A561J	R,METAL OXIDE	560 OHM 2W
⚠R429	AD301593	R002T23R3J	RC	3.3 OHM 1/2W
⚠R430	AD300421	R5X2CF1R8J	R,CEMENT	1.8 OHM 10W
⚠R434	AD301593	R002T23R3J	RC	3.3 OHM 1/2W
⚠R438	AE005419	R3X181272J	R,METAL OXIDE	2.7K OHM 1W
⚠R445	AD300600	R655812R2J	R,FUSE	2.2 OHM 1W
⚠R455	BZ210021	R65582680J	R,FUSE	68 OHM 1/2W
R460	AE004808	R0G3K2221K	RC	220 OHM 1/2W
⚠R462	BZ210211	R3X28B221J	R,METAL OXIDE	220 OHM 3W
⚠R468	BZ210003	R3K181102J	R,METAL OXIDE	1K OHM 1W
⚠R472	AD302347	R3X181120J	R,METAL OXIDE	12 OHM 1W
⚠R473	AD302347	R3X181120J	R,METAL OXIDE	12 OHM 1W
⚠R483	AE000147	R3X181220J	R,METAL OXIDE	22 OHM 1W
⚠R492	AE002520	R3X181100J	R,METAL OXIDE	10 OHM 1W
⚠R501	BZ210233	R4X5T6272F	R,METAL	2.7K OHM 1/6W
⚠R503	BZ210206	R002T2155J	RC	1.5M OHM 1/2W
⚠R508	AD301203	R002T4101J	RC	100 OHM 1/4W
⚠R510	BZ210080	R0G3K2275K	RC	2.7M OHM 1/2W
⚠R516	AD301143	R3X181R27J	R,METAL OXIDE	0.27 OHM 1W
⚠R517	AE005735	R63881R22J	R,FUSE	0.22 OHM 1W
⚠R518	AD301143	R3X181R27J	R,METAL OXIDE	0.27 OHM 1W
⚠R524	AE001073	R3X18A331J	R,METAL OXIDE	330 OHM 2W
⚠R525	BZ210059	R3X1812R2J	R,METAL OXIDE	2.2 OHM 1W
⚠R530	AE004810	R5X2CF010J	R,CEMENT	1 OHM 10W
⚠R545	AE003270	R3X28B2R7J	R,METAL OXIDE	2.7 OHM 3W
⚠R548	BZ210051	R3X18AR47J	R,METAL OXIDE	0.47 OHM 2W
⚠R559	BZ210220	R002T2224J	RC	220K OHM 1/2W
⚠R560	AE005234	R5X2AER47J	R,CEMENT	0.47 OHM 7W
⚠R563	BZ210078	R65584101J	R,FUSE	100 OHM 1/4W
⚠R801	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R834	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R842	BZ210154	R5X2CE332J	R,CEMENT	3.3K OHM 7W
⚠R855	BZ210185	R65582151J	R,FUSE	150 OHM 1/2W
⚠R881	AD302132	R3X18A271J	R,METAL OXIDE	270 OHM 2W
⚠R3411	AD301597	R3X18AR39J	R,METAL OXIDE	0.39 OHM 2W
⚠R3412	AD301597	R3X18AR39J	R,METAL OXIDE	0.39 OHM 2W
R8103	AD301203	R002T4101J	RC	100 OHM 1/4W
			CAPACITORS	
⚠C403	BZ110195	E02LU8220M	CE	22 UF 100V
⚠C404	AE004798	E61DFB470M	CE	47 UF 160V
⚠C412	AE004366	P4J7F3304J	CMPP	0.3 UF 250V PMS
C417	AE000606	P3N1F5103J	CPP	0.01 UF 630V
⚠C418	AE004807	P4N8FK852H	CMPP	C 0.0085UF 1.5KV
C424	AE003039	P4N8FK682H	CMPP	C 0.0068UF 1.5KV
C425	AE004367	P4J7F3335J	CMPP	3.3 UF 250V PMS
C426	BZ110204	E0ELFD220M	CE	22 UF 250V
⚠C429	AD301434	E02LU4101M	CE	100 UF 35V
⚠C430	BZ110101	E5EZF3222M	CE	2200 UF 25V
C433	BZ110239	C03L0R7L2K	CC	330 PF 2KV R
⚠C434	BZ110124	E5EZF4222M	CE	2200 UF 35V
C435	AE003039	P4N8FK682H	CMPP	C 0.0068UF 1.5KV
C438	AE004933	P4J7F3333J	CMPP	0.033 UF 250V PMS
C445	AE000606	P3N1F5103J	CPP	0.01 UF 630V
⚠C446	BZ110225	E5EZFD220M	CE	22 UF 250V
⚠C502	BZ110025	P2122B224M	CMP	0.22 UF 275V ECQUL
⚠C505	BZ110035	P2122B104M	CMP	0.1 UF 275V ECQUL
C506	AE002229	P411F4393J	CMPP	0.039 UF 400V ECWF
⚠C509	BZ110084	E5EZFC220M	CE	22 UF 200V
C512	BZ110202	C0PLRR713K	CC	0.001 UF 2KV R

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			CAPACITORS	
⚠C517	AE004934	CD39B0MH2K	CC	220 PF 250V
⚠C519	AE000950	CD39E0ME3M	CC	0.0015UF 250V
⚠C525	BZ110222	CD39E0MH3M	CC	0.0022UF 250V
⚠C528	BZ110226	C0JBB07H3K	CC	0.0022UF 2KV B
⚠C529	BZ110226	C0JBB07H3K	CC	0.0022UF 2KV B
⚠C530	AE003883	E51DFC102M	CE	1000 UF 200V
⚠C536	BZ110224	E5EZF3332M	CE	3300 UF 25V
⚠C541	BZ110076	E02LF1222M	CE	2200 UF 10V
⚠C542	BZ110053	E02LF3102M	CE	1000 UF 25V
C543	BZ110191	C03L0R7E3K	CC	0.0015UF 2KV R
⚠C545	AE004799	E61SFC221M	CE	220 UF 200V
⚠C548	BZ110055	E5EZF4102M	CE	1000 UF 35V
C549	BZ110183	C03L0R7W2K	CC	820 PF 2KV R
C567	BZ110209	E0ELF3222M	CE	2200 UF 25V
⚠C572	AE005174	E61FF1222D	CE	2200 UF 10V
C808	AE003828	C13DB0713K	CC	0.001 UF 2KV B
C809	AD301347	E0ELFD330M	CE	33 UF 250V
C870	AE000272	E50HU2470M	CE	47 UF 16V
C3406	AE004935	E02LF0332M	CE	3300 UF 6.3V
			DIODES	
D001	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D101	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D102	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D103	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D104	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D105	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D106	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D107	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D108	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D109	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D110	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
D111	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D112	BZ410012	D28TQS04N0	DIODE,SCHOTTKY	11EQS04N-TA1B2
⚠D402	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
⚠D403	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D404	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D405	AE004792	DCBFMQ3GU0	DIODE	FMQ-3GULF027-102
D406	BZ410103	D2WXGP10J0	DIODE,RECTIFIER	RGP10J-EIC
D407	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
⚠D408	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D409	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
D410	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
D411	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
⚠D412	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
D413	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D414	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
⚠D415	BZ410063	D2WTAU02A0	DIODE,SILICON	AU02A-EIC
D417	AE004359	D97U03901B	DIODE,ZENER	MTZJ39B T-77
D418	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D420	BZ410094	D97U01501B	DIODE,ZENER	MTZJ15B T-77
D421	AE004790	D2WX0216E0	DIODE,SILICON	RGP02-16E
D422	AE004790	D2WX0216E0	DIODE,SILICON	RGP02-16E
D423	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D424	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D501	BZ410031	D6CE24110A	DIODE,VARISTA	ENE241D-10A-Q6
D502	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D503	AD302208	D97U03R31B	DIODE,ZENER	MTZJ3.3B T-77
D504	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D505	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D506	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
⚠D507	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
D508	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D509	BZ410043	D2WT011E10	DIODE,SILICON	11E1-EIC
⚠D510	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
⚠D511	BZ410085	D2WXN40050	DIODE,SILICON	1N4005-EIC
D512	BZ410114	D2WXGP10K0	DIODE,RECTIFIER	RGP10K-EIC

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			DIODES	
D514	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D515	AE006060	D28T0ERB20	DIODE,RECTIFIER	10ERB20-TA1B2
D516	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D517	AD300671	D97U01801B	DIODE,ZENER	MTZJ18B T-77
D518	BZ410066	D97U06R21B	DIODE,ZENER	MTZJ6.2B T-77
D519	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D520	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D521	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D522	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D523	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D524	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D525	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D526	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D527	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
⚠D528	BZ410062	D2WTRM11C0	DIODE,SILICON	RM11C-EIC
D529	AD300671	D97U01801B	DIODE,ZENER	MTZJ18B T-77
⚠D530	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D531	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
⚠D532	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
⚠D533	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
⚠D534	AE003872	DOU002720M	DIODE,VARISTA	DSS-272M-S00B
D535	BZ410064	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77
⚠D536	AD301980	D2CF2016L0	DIODE,SILICON	FE201-6L49
⚠D537	BZ410091	D230PF6DT0	DIODE,SILICON	FEPF6DT
⚠D539	BZ410091	D230PF6DT0	DIODE,SILICON	FEPF6DT
D540	AD300731	D2WXN49370	DIODE,SILICON	1N4937
⚠D541	AD301980	D2CF2016L0	DIODE,SILICON	FE201-6L49
D543	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D544	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D546	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D547	BZ410084	D97U01101B	DIODE,ZENER	MTZJ11B T-77
D548	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D549	BZ410037	D97U03301B	DIODE,ZENER	MTZJ33B T-77
D550	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
⚠D551	AE004936	D6E027110A	DIODE,VARISTA	ENE271D-10A
D552	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D554	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D601	AE006394	D28T0ERB60	DIODE,RECTIFIER	10ERB60-TA1B2
D606	AE004358	D97U02R01B	DIODE,ZENER	MTZJ2.0B T-77
D607	AD300069	D97U02701B	DIODE,ZENER	MTZJ27B T-77
D608	AE006394	D28T0ERB60	DIODE,RECTIFIER	10ERB60-TA1B2
D609	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D610	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D611	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D612	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D613	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D614	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D615	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D616	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D617	BZ410023	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D618	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D619	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D621	BZ410034	D97U01301B	DIODE,ZENER	MTZJ13B T-77
D622	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D701	BZ410022	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77
D702	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D703	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D704	BZ410022	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77
D705	BZ410084	D97U01101B	DIODE,ZENER	MTZJ11B T-77
D801	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D802	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D803	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D807	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D808	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D809	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D853	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			DIODES	
D854	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D855	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D856	BZ410006	D1VT001330	DIODE,SILICON	1SS133T-77
D901	AD300070	D97U01201B	DIODE,ZENER	MTZJ12B T-77
D902	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D903	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D1001	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1002	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1003	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1004	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D1091	BZ410021	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D2001	BZ410077	D2WXSB1400	DIODE,SCHOTTKY	SB140-EIC
D2009	BZ410054	0021721150	LED	SLR-342VCT32
D2101	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D2102	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D2103	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3401	BZ410043	D2WT011E10	DIODE SILICON	11E1-EIC
D3403	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D3404	BZ410010	D28T21DQN9	DIODE,SCHOTTKY	21DQ09N-TA2B1
D3451	AE004643	D28R1QS040	DIODE	EC31QS04-TE12L
D3601	AE004937	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3602	AE004795	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3603	AE004937	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3604	AE004793	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3605	AE004793	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3609	AE004794	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3613	AE004794	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
			ICS	
IC101	AE005608	I56F57118A	IC	OEC7118A
IC102	79097849	I9UF032290	IC	PST3229NR
IC103	79097849	I9UF032290	IC	PST3229NR
IC199	AE008040	S3U0010E04	MEMORY DATA	AT24C256N-10SU-2.7
⚠IC401	BZ611117	I03TD80410	IC	LA78041
⚠IC402	AD302356	I03S065100	IC	LA6510
⚠IC501	AE002809	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
⚠IC502	AE006398	I2BT067530	IC	STR-W6753
⚠IC503	AE002809	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)
⚠IC504	AD302211	I1KJ9A431A	IC	KIA431A-AT
⚠IC505	AD301929	I1KA78R090	IC	KIA278R09PI
⚠IC506	AD302211	I1KJ9A431A	IC	KIA431A-AT
IC602	AE004361	I05DD13170	IC	TA1317ANG
IC603	AE004362	I05DE13600	IC	TA1360ANG
IC701	AE002728	I01F05853B	IC	AN15853B-E1
IC702	AE004651	I0QF025840	IC	NJM2584AM(TE1)
IC705	AE004800	I05FE13830	IC	TA1383FG
IC706	AE004651	I0QF025840	IC	NJM2584AM(TE1)
IC707	BZ611104	I0QF02533V	IC	NJM2533V(TE2)
IC902	AE006396	I19FFP3440	IC	MSP3440G-QA-C12-001(BBE)
⚠IC1001	AE006397	I1MFPA2020	IC	TA2024-ASE
IC1501	AE005607	I55FE0A920	IC	TC90A92AFG
IC2101	AE005610	IFSK0883C0	IC	MST9883C-LF-110
⚠IC3400	BZ611089	I1KA98R09A	IC	KIA78R09API
⚠IC3401	AD301931	I1KA78R050	IC	KIA278R05PI
⚠IC3402	AE003914	I1KA98R330	IC	KIA278R33PI
IC3451	AE006395	I0GF91ZPH0	IC	PQ070XZ01ZPH
IC3452	AE006395	I0GF91ZPH0	IC	PQ070XZ01ZPH
IC3601	AE004654	I1KF98D330	IC	KIA78D33F
IC3602	AE004654	I1KF98D330	IC	KIA78D33F
IC3604	AE001295	I0QJ045800	IC	NJM4580M(TE1)
IC3605	AE004805	I5PF099930	IC	SII9993CTG100
IC3606	AE008034	S3U0010E02	MEMORY DATA	BR24L02F-WE2
IC3607	AE004802	I1FF043340	IC	CS4334-KSZR
IC3608	AE008035	S3U0010E03	MEMORY DATA	BR24L32F-WE2
IC3611	AE006399	ICMF08RD20	IC	SST89E58RD2-40-C-TQJE
IC3612	AE003923	I5CF01G080	IC	SN74AHC1G08DCKR
IC3901	AE005611	IFTK023010	IC	FLI2301-LF-BD

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			ICS	
IC3902	AE005609	IF6J032B26	IC	MT48LC2M32B2P-6(Y14W)
			TRANSISTORS	
Q101	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q102	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q103	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q104	BZ510022	TNYJJ05001	COMPOUND TRANSISTOR	DTC114TKAT146
⚠Q401	AE004385	TC5TC3328Y	TRANSISTOR,SILICON	2SC3328_Y(TPE6_F)
⚠Q402	AE004814	T250029200	FET	2SK2920(Q)
⚠Q403	AE008036	TCKF059050	TRANSISTOR,SILICON	2SC59050010R
Q404	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q405	AE005876	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T1
Q407	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q408	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q410	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q413	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q414	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q415	AE004817	TC3F046340	TRANSISTOR,SILICON	2SC4634
Q501	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q502	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q503	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q504	AE008037	TJXG20NM50	FET	STP20NM50FP
⚠Q505	BZ510070	TCAT032034	TRANSISTOR,SILICON	KTC3203_Y-AT
Q506	BZ510105	TCAT03209Y	TRANSISTOR,SILICON	KTC3209_Y-AT
Q507	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
⚠Q508	BZ510004	TA3T016240	TRANSISTOR,SILICON	2SA1624-AA
⚠Q509	BZ510105	TCAT03209Y	TRANSISTOR,SILICON	KTC3209_Y-AT
Q510	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q601	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q602	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q603	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q604	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q605	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q606	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q607	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q608	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q611	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q612	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q613	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q615	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q616	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q617	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q701	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q702	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q703	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q704	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q705	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q706	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q708	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q709	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q710	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q716	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q717	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
⚠Q801	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
⚠Q802	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
⚠Q803	AE004383	TC30040750	TRANSISTOR,SILICON	2SC4075D/E
Q804	BZ510073	TAATA12660	TRANSISTOR,SILICON	KTA1266-AT(Y,GR)
⚠Q810	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q811	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠Q812	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q814	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q852	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q853	AE004818	TCUT0752GY	TRANSISTOR,SILICON	2SC752(G)TM_Y(TP2
Q854	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q855	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q856	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q857	BZ510073	TAATA12660	TRANSISTOR,SILICON	KTA1266-AT(Y,GR)

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		TRANSISTORS		
Q858	AE004815	TA10021400	TRANSISTOR,SILICON	2SA2140
Q859	AE004816	TC10059930	TRANSISTOR,SILICON	2SC5993
Q860	BZ510069	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q1002	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1098	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1099	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1501	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1502	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q1503	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q1504	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q1505	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q2001	BZ510021	TNYJC05001	COMPOUND TRANSISTOR	DTC124EKAT146
⚠Q3403	AD301934	TBA0013660	TRANSISTOR,SILICON	KTB1366(O,Y)
Q3404	BZ510022	TNYJJ05001	COMPOUND TRANSISTOR	DTC114TKAT146
Q3603	BZ510113	T27T030180	FET	2SK3018T106
Q3604	BZ510113	T27T030180	FET	2SK3018T106
Q3605	BZ510113	T27T030180	FET	2SK3018T106
Q3606	BZ510113	T27T030180	FET	2SK3018T106
Q3607	BZ510113	T27T030180	FET	2SK3018T106
Q3608	BZ510081	TPYJA05001	COMPOUND TRANSISTOR	DTA143EKAT146
Q3609	BZ510045	TNYJD05001	COMPOUND TRANSISTOR	DTC144EKAT146
Q3610	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3611	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3612	BZ510045	TNYJD05001	COMPOUND TRANSISTOR	DTC144EKAT146
Q3613	AE005873	T8RA030520	TRANSISTOR,SILICON	2SC3052-T1
Q3901	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3902	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3903	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3904	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3905	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
Q3906	AE005872	T6RA015300	TRANSISTOR,SILICON	2SA1530A-T1
		COILS &TRANSFORMERS		
L002	BZ310117	021LA6330K	COIL	33 UH
L402	AE004749	022R00042A	COIL,LINEARITY	ELH5L7150N
L405	AE004330	02D3000064	COIL,CHOKE	ELC18B821LM
L406	AE004329	02D3000063	COIL,CHOKE	ELC18B151LK
L407	AE007112	02D3000073	COIL,CHOKE	ELC18B151EN
L408	AE004751	02D3000069	COIL,CHOKE	ELC18B103LM
⚠L502	AE004327	029X000118	COIL,LINE FILTER	SS28V-R25080-CH
⚠L503	AE004327	029X000118	COIL,LINE FILTER	SS28V-R25080-CH
L504	BZ310150	02167E220K	COIL	R7 22 UH
L505	BZ310118	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
L506	BZ310150	02167E220K	COIL	R7 22 UH
L508	AD301785	02167E100K	COIL	R6-1 10 UH
L602	BZ310039	02167F220J	COIL	22 UH
L603	BZ310039	02167F220J	COIL	22 UH
L604	BZ310039	02167F220J	COIL	22 UH
L606	BZ310183	021LA6220J	COIL	22 UH
L607	BZ310039	02167F220J	COIL	22 UH
L701	BZ310040	02167F470J	COIL	47 UH
L702	BZ310040	02167F470J	COIL	47 UH
L703	BZ310040	02167F470J	COIL	47 UH
L705	BZ310041	02167F101J	COIL	100 UH
L706	BZ310040	02167F470J	COIL	47 UH
L707	BZ310040	02167F470J	COIL	47 UH
L708	BZ310040	02167F470J	COIL	47 UH
L710	BZ310040	02167F470J	COIL	47 UH
L711	BZ310043	021LA6150K	COIL	15 UH
L712	BZ310041	02167F101J	COIL	100 UH
L805	BZ310001	021673101J	COIL	100 UH
L806	BZ310002	021673101K	COIL	100 UH
L807	BZ310002	021673101K	COIL	100 UH
L808	AD300613	02167F150J	COIL	15 UH
L809	AD300613	02167F150J	COIL	15 UH
L810	AD300613	02167F150J	COIL	15 UH
L901	BZ310141	02167F100J	COIL	10 UH

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		COILS &TRANSFORMERS		
L904	BZ310141	02167F100J	COIL	10 UH
L905	BZ310141	02167F100J	COIL	10 UH
L1001	AE004748	021W0G100M	COIL	10 UH
L1002	AE004748	021W0G100M	COIL	10 UH
L1003	AE004748	021W0G100M	COIL	10 UH
L1004	AE004748	021W0G100M	COIL	10 UH
L1005	BZ310118	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
L1501	AE005592	0216S8330K	COIL	F 33 UH
L1502	AE005285	0216S8470K	COIL	F 47 UH
L1503	AE005591	0216S81R5M	COIL	F 1.5 UH
L1504	AE005285	0216S8470K	COIL	F 47 UH
L1505	AE005589	0216S8100K	COIL	F 10 UH
L1506	AE005589	0216S8100K	COIL	F 10 UH
L1507	AE005589	0216S8100K	COIL	F 10 UH
L1508	AE005590	0216S8150K	COIL	F 15 UH
L1509	AE005590	0216S8150K	COIL	F 15 UH
L1511	AE005590	0216S8150K	COIL	F 15 UH
L1512	AE005590	0216S8150K	COIL	F 15 UH
L1513	AE005058	0216S4220J	COIL	22 UH
L1514	AE005592	0216S8330K	COIL	F 33 UH
L2101	AE005285	0216S8470K	COIL	F 47 UH
L2103	AE005285	0216S8470K	COIL	F 47 UH
L2104	AE005593	0216SD5R6J	COIL	5.6 UH
L2105	AE005593	0216SD5R6J	COIL	5.6 UH
L2106	AE005593	0216SD5R6J	COIL	5.6 UH
L3401	BZ310150	02167E220K	COIL	R7 22 UH
L3402	BZ310150	02167E220K	COIL	R7 22 UH
L3601	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3602	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3603	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3604	AE004752	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3901	AE005285	0216S8470K	COIL	F 47 UH
L3903	AE005588	0216S4270J	COIL	27 UH
L3907	AE005285	0216S8470K	COIL	F 47 UH
L3908	AE005285	0216S8470K	COIL	F 47 UH
L3909	AE005590	0216S8150K	COIL	F 15 UH
T401	AE004332	0450190181	TRANS,HORIZONTAL DRIVE	ETH19K208AZ
⚠T402	AE004755	0486290014	TRANSFORMER,PULSE	86290014
⚠T501	AE004942	048119003S	TRANSFORMER,SWITCHING	8119003S
⚠T502	AE008020	0481490044	TRANSFORMER,SWITCHING	81490044
		JACKS		
J705	AE002759	060J431020	RCA JACK	MSP-213V2-432_NI_LF
J706	AE004759	060Q431019	RCA JACK	YKC21-7306N
J707	AE004759	060Q431019	RCA JACK	YKC21-7306N
J708	AE004760	063D000078	JACK PLATE	MSP-803V-BBA-432_NI_LF
J709	AE004760	063D000078	JACK PLATE	MSP-803V-BBA-432_NI_LF
⚠J801	AE004762	066F130022	SOCKET,CATHODE RAY TUBE	ISDW03S-F
J2201	AE004761	063D700010	JACK	MDC-012V1-A_LF
J2202	AE004756	060J401104	RCA JACK	MTJ-032-03A-30FE
J2203	AE004758	060J401106	RCA JACK	MTJ-032-03A-32FE
J2204	AE004757	060J401105	RCA JACK	MTJ-032-03A-31FE
J3601	AE002950	060J421037	RCA JACK	MTJ-032-05A-32-FE
J3602	AE002951	060J421030	RCA JACK	MTJ-032-05A-31-FE
		SWITCHES		
SW2001	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2002	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2003	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2004	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
SW2005	BZ612010	0504101T34	SWITCH,TACT	EVQ21505R
		P.C.BOARD ASSEMBLIES		
PCB070	AE008024	A3U0010070L	PCB ASS'Y	CMD008A
PCB110	AE008025	A3U0010110L	PCB ASS'Y	CCD002B
PCB260	AE008026	A3U0010260L	PCB ASS'Y	CED008B
PCBD20	AE008041	A3U0020D20L	PCB ASS'Y	CED019A
PCBD80	AE008028	A3U0010D80L	PCB ASS'Y	CED012B
PCBDJ0	AE008029	A3U0010DJ0L	PCB ASS'Y	CED011A

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		P.C.BOARD ASSEMBLIES		
PCBDS0	AE008030	A3U0010DS0L	PCB ASS'Y	CED020A
		MISCELLANEOUS		
B403	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B404	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B405	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B851	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B852	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B853	BZ310121	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B1501	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B2102	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3601	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3602	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3603	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3604	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3608	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3609	AE004602	024HC36001	CORE,BEADS	HCB2012K-600T25
B3610	BZ310186	024HC31022	CORE,BEADS	FCM2012H-102T04
B3611	BZ310186	024HC31022	CORE,BEADS	FCM2012H-102T04
BT001	AE005640	141R004016	BATTERY,MANGAN	GR03X-SP2
BT002	AE005640	141R004016	BATTERY,MANGAN	GR03X-SP2
CD101	AE005945	06C32B3303	CORD,CONNECTOR	C32B3303
⚠CD501	AE007513	1209615905	CORD,AC BUSH	9615905
⚠CD507	AE008018	028R340002	COIL,DEGAUSS	8R340002
CD509	AE003641	06CU2D2501	CORD,CONNECTOR	CU2D2501
CD601	AE005597	06CU294002	CORD,CONNECTOR	CU294002
CD603	AE008021	06C3226001	CORD,CONNECTOR	C3226001
CD605	AE005422	06CU273302	CORD,CONNECTOR	CU273302
CD711	AE004953	06CU013005	CORD,CONNECTOR	CU013005
CD802	AE008039	WEL6864038	FLAT CABLE AWM2468 A	WG26 7C GRAY 640MM
CD803	AE005222	06C383037A	CORD,CONNECTOR	C383037A
CD808	BZ614492	WCL6850038	FLAT CABLE AWM2468 A	WG26 5C GRAY 500MM
CD851	AE008038	WAL6860038	FLAT CABLE AWM2468 A	WG26 3C GRAY 600MM
CD852	AD301043	06CU232001	CORD,CONNECTOR	CU232001
CP101	BZ614214	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
CP103	AE001188	069S270639	CONNECTOR PCB SIDE	A2001WR2-7P
CP403	BZ614365	069S120419	CONNECTOR PCB SIDE	A2502WV2-2P
⚠CP404	AE006075	069X460109	CONNECTOR PCB SIDE	B06B-DVS-L_(LF)
⚠CP501	BZ614283	069S420110	CONNECTOR PCB SIDE	A1561WV2-2P
CP502	BZ614176	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
CP504	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP505	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP506	BZ614016	069W01001A	CONNECTOR PCB SIDE	003P-2100
CP509	BZ614420	069S2D0629	CONNECTOR PCB SIDE	A2001WV2-13P
CP510	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP601	BZ614458	069S290629	CONNECTOR PCB SIDE	A2001WV2-9P
CP602	AD301997	067U007029	WIRE HOLDER	B2013H02-7P
CP605	BZ614485	069S270629	CONNECTOR PCB SIDE	A2001WV2-7P
CP711	BZ614444	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP801	BZ614416	069S220629	CONNECTOR PCB SIDE	A2001WV2-2P
CP803	AD301996	069S330010	CONNECTOR PCB SIDE	A2361WV2-3P
CP804	BZ614058	069W010010	CONNECTOR PCB SIDE	005P-2100
CP852	BZ614350	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P
CP853	BZ614349	067U003029	WIRE HOLDER	B2013H02-3P
CD1001	AE004772	06CU241802	CORD,CONNECTOR	CU241802
CD1003	AE004773	06CU263001	CORD,CONNECTOR	CU263001
CD2201	AE004775	06CU283001	CORD,CONNECTOR	CU283001
CD2251	AE005223	06CU013502	CORD,CONNECTOR	CU013502
CP1001	AD301998	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CP1003	BZ614242	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P
CP1004	AD301045	069S140419	CONNECTOR PCB SIDE	A2502WV2-4P
CP2201	AD301796	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP3601	AE004763	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3602	AE004769	069J1K0048	CONNECTOR	IMSA-9130S-20L
CP3604	BZ614239	069S290639	CONNECTOR PCB SIDE	A2001WR2-9P
CP802B	AD300098	069R270589	CONNECTOR PCB SIDE	52147-0710
CP808A	BZ614276	067U005049	WIRE HOLDER	B2013H02-5P

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
		MISCELLANEOUS		
CP808B	BZ614212	069R250589	CONNECTOR PCB SIDE	52147-0510
CP851A	BZ614349	067U003029	WIRE HOLDER	B2013H02-3P
CP851B	AD300101	069R230589	CONNECTOR PCB SIDE	52147-0310
CP3604A	AE007361	069J1K0078	CONNECTOR PCB SIDE	IMSA-9130B-20-PT1
CP3901A	AE006384	069R2Y0720	CONNECTOR PCB SIDE	79107-7016
CP3901B	AE005595	069R2Y0700	CONNECTOR PCB SIDE	87760-3416
EL0701	BZ614043	124116281A	EYE LET	XRY16X28BD
EL0702	BZ614044	124120301A	EYE LET	XRY20X30BD
EL1101	BZ614043	124116281A	EYE LET	XRY16X28BD
EL1102	BZ614044	124120301A	EYE LET	XRY20X30BD
⚠F501	BZ614422	081PC6R305	FUSE	51MS063L
⚠F502	AE004346	0835A07005	MICRO FUSE	20N_7000FSW
⚠FB401	AE008019	043734001F	TRANSFORMER,FLYBACK	3734001F
FH501	AE002634	06710T0009	HOLDER,FUSE	EYF-52BCY
FH502	AE002634	06710T0009	HOLDER,FUSE	EYF-52BCY
NR1501	AE004680	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR1502	AE004680	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2101	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2102	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2103	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2104	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2105	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2106	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR2107	AE005599	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR3901	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3902	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3903	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3904	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3905	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3906	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3907	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3908	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3909	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3910	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3911	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3912	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3913	AE006386	110P4000M4	R,NETWORK	4D03WGJ0000T5E
OS2001	AD301048	0773071001	REMOTE RECEIVER	RPM7138-WH5
⚠RY501	AE006070	0560X20118	RELAY	G5PA-1-SA(WEC)
⚠RY502	AE003621	0560V50118	RELAY	ALKS329
⚠SP1001	AE008022	070W457009	SPEAKER	MSF-2D5SB10W-1BL
⚠TH502	BZ410079	DF5EL3R0A0	DEGAUSS ELEMENT	ZPB45BL3R0A
TM101	AE006385	076D0KK010	TRANSMITTER	ORT204N7404359-U
⚠TU001	AE005631	0163300016	RF UNIT	115-V-KA35AR
⚠V801	AE008023	098G340501	CRT W/DY	W86MAG183X80
X103	AE004780	100WT01611	CRYSTAL	HC-49/U-S
X603	AE004348	1002R01502	CERAMIC OSCILLATOR	CSBLA503KECZF30-B0
X701	AE004348	1002R01502	CERAMIC OSCILLATOR	CSBLA503KECZF30-B0
X702	AE004349	100CT3R536	CRYSTAL	HC-49/U
X901	BZ613042	100CT01803	CRYSTAL	HC-49/U-S
X1501	AE004628	100DT04201	CRYSTAL	SMD-49
X3601	AE004779	100CT01101	CRYSTAL	HC-49/U-S
X3901	AE005598	100DT01303	CRYSTAL	SMD-49

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

CC..... CERAMIC CAPACITOR
CE..... ALUMI ELECTROLYTIC CAPACITOR
CP..... POLYESTER CAPACITOR
CPP..... POLYPROPYLENE CAPACITOR
CPL..... PLASTIC CAPACITOR
CMP..... METAL POLYESTER CAPACITOR
CMPL..... METAL PLASTIC CAPACITOR
CMPP..... METAL POLYPROPYLENE CAPACITOR

TOSHIBA CORPORATION
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